ALCOHOL, HYGIENE, AND LEGISLATION

Alcohol
Hygiene and Legislation

By

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CHAPTER I

THE PROBLEM OF INEBRIETY *

ONE of the most difficult things about the liquor question today is to determine just why it exists. The answer to the question, Why do most men drink? appears difficult just in proportion to the extent of our knowledge of human nature. And yet we can hardly expect to remedy a condition without knowing its cause.

Professor G. T. W. Patrick of the Iowa State University gives an inkling of the breadth of the problem as considered by psychologists. Professor Patrick has ad-

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vanced the opinion that the craving for drink in normal persons is a desire to deaden the higher mental spheres which, being the last evolved, are feeblest and suffer the most from the pains of exhaustion in the struggle for existence. In other words, that the desire for alcohol or kindred substances having narcotic effects represents a physiological human instinct.

If this is true we should expect to find that all human beings have an instinctive craving for such substances as alcohol, tea, coffee, tobacco, or narcotic drugs. And we do find this universal craving in all races, savage and civilized, practically without exception. But since the vast majority of persons do not crave excessive quantities, but simply enough to maintain mental equilibrium, we must consider this type as normal, and stamp as abnormal the person who indulges habitually in excessive quantities.

In case of the dipsomaniac, we have, theoretically, a person whose brain structures are weakened in a certain part, just as in any other form of mental unsoundness. Indeed, this is the generally accepted view of modern clinicians—that the inebriate is a person

whose brain is structurally different from that of the normal man. We should, therefore, draw the line just as distinctly between the inebriate and the normal person, as between the normal person and the lunatic.

Apparently, then, it is somewhat easier to explain inebriety than to explain the normal desire for narcotics, just as certain other pathological conditions are frequently easier to explain than physiological ones. We can, for example, readily understand why a nerve ceases to act when injured, but are wholly unable to comprehend the mechanism of normal nerve action.

The reasons for taking "normal quantities" of narcotics are likewise enigmatic. There are many men who take a glass of liquor for the temporary stimulating effect upon their mental faculties. Not only take the liquor, but render themselves more efficient, temporarily, by doing so. On the other hand, there are some persons, particularly those in a state of great mental activity, who take alcohol for precisely the opposite effect—to slow down the overactive brain cells. The first condition is illustrated by the classic case of the famous sur-

geon John Hunter, who always took a glass of spirits (or laudanum) to key up his mind to the highest pitch before making an address; the second is that of a modern statesman who resorts to a glass of liquor to "step down" his mental dynamo after a protracted strain of hard thinking.

In both these cases the cause and effect are relatively tangible. More obscure, and infinitely more important to us, is the explanation of why the average American today consumes so much more liquor than did the average American fifty years ago.

We may dismiss at once the assumption that men continue to drink alcoholic beverages through ignorance that excessive potations are harmful despite what appears to be a fixed delusion of certain reformers to the contrary. Every person in this country knows that excessive use of alcohol is harmful. For this knowledge has been drilled into school-children and adults for more than a generation. And yet the consumption of alcohol has continued as a steadily rising tide for more than fifty years.

The fact that this steady increase in per capita consumption of alcohol has been

more marked during the last fifty years, and that during this same period there has been a complete revolution in our methods of life, and also a great change in liquor legislation, raises the question as to whether there is any direct connection between these conditions. In 1850 only about one person in ten lived in an urban community, and the country as a whole drank 4.08 gallons of liquor per capita annually. But in 1913 every other man was a city dweller, and the annual per capita consumption had increased to about 23 gallons. During the same period a relentless war had been waged against liquor.

It may be merely coincidental that the increase in the consumption of alcohol and the increase in urban population have kept pace with each other. But there is no doubt that the change in the mental attitude of the people which causes them to forsake the country for the city is in their "higher mental spheres"; and city life certainly influences these centers very materially. The person who leaves the farm to dwell in the city is actuated by increased activity in his higher mental centers. Either he is am-

bitious or discontented, or both. He is, in short, in a state of somewhat unstable mental equilibrium, or at least a condition of heightened mental tension as compared with his more contented neighbor.

Unfortunately, city life tends to aggravate rather than lessen mental tension. The actual struggle for existence is infinitely more intense and demoralizing in the city than in the country. Or, again, the disappointments in ambitions in one of a dozen fields—wealth, social position, fame—affect directly those higher psychic centers of the brain that, according to Professor Patrick, are responsible for the desire for a stimulant. Thus the city dweller by the exhaustive mental activity in which he lives would naturally crave drink more than the countryman, although it must be remembered that the quality of his mentality was an inheritance, not created, but possibly enhanced by city life.

We must remember, also, that the loneliness of city life for certain individuals tends to distort the higher centers of mental equilibrium. For, paradoxically, a crowded city is one of the most lonely places in the world. The compelling desire for com-

panionship is a normal instinct. And this craving is not gratified by "merely being *in* a crowd without being *of* it." Our cities are full of lonely men, particularly in the poorer classes. And for such lonely persons, seeking to gratify their normal instinct of sociability, there is little choice at the present time but to become a member of the "poor man's club," the saloon.

It has been suggested that cheap theaters and similar amusements would afford the same attractions. But the prevalence of "movie" shows, without any appreciable effect upon the patronage of the "poor man's clubs," shows the fallacy of this prediction. The kind of mental stimulation offered by theaters or moving-picture shows does not take the place of the more intimate companionship of individuals. Sociability to the average man means gossiping with congenial companions—a kind of sedative mental pabulum, which may be regarded as the bread-and-butter of our mental commissary. Theaters, on the contrary, are stimulants—desserts or pastries, so to speak, which soon cloy if used as an exclusive diet.

We must also take into our reckoning the

vast army of city dwellers who are constantly underfed and poorly nourished. There is not the slightest doubt that a mug of beer taken by one of these persons serves as a nourishing food, besides helping to gratify the craving of the higher intellectual centers. And, undoubtedly, actual hunger is an important element in the increased liquor consumption. Moreover, since the difficulties of getting sufficient food are steadily increasing, the resulting physical craving adds to the complexity of the problem of liquor control.

ALCOHOL AND THE RACE

The fact that, although the country as a whole is far more intemperate than ever before, the proportion of inebriates appears to be very little larger than formerly, suggests that our race is gradually becoming immune to alcohol.

"In my opinion," wrote Dr. Hiram Elliott recently, "the human system tolerates alcohol the best of all drugs, including tobacco." And he adds: "This does not mean that a man could not be drowned in a bath of Malmsey. He could be drowned in milk."

There is a tendency, of course, for human beings to become more and more tolerant to injurious substances, or diseases, when subjected to their influence for generations. We see this illustrated by the ravages of certain diseases, such as measles, which are relatively innocuous to civilized nations, but which are scourges to primitive tribes. And we have a similar indication in the effect of spirituous liquor upon races accustomed to the milder fermented beverages, who are driven to maniacal excitement even by relatively small potations of spirits.

Moreover, the prevalence of alcoholic insanity among certain races and the small percentage of this disease in others indicates that there is a tendency to increased immunity from alcohol. Thus the Jews in America seem to be almost immune to this form of mental aberration—are, indeed, some eighty times less liable to alcoholic insanity than Americans and three hundred times less so than some Europeans. Yet this immunity cannot be attributed to their abstemiousness, lack of development in the higher emotional centers, or difference in surrounding conditions.

Italians "had become noted throughout the world for their sobriety" until recently; but that "ill-advised ordinances" which resulted in the introduction of distilled spirits were rapidly changing the situation. In all probability the aggregate amount of alcohol consumed was no greater than heretofore. But the Italians who are relatively immune to the older beverages are not so to the newer forms.

INEBRIETY A DISEASE

Many of us are inclined to believe that tea, coffee, alcohol, and tobacco are not only harmful substances, but substances that the world would be better off without. We must not forget, however, that we may be confusing cause with effect. For it is an indisputable fact that the introduction of these drugs was concomitant with the beginning of the era of man's greatest advancement. It is quite as easy to show that man developed with wonderful rapidity *because* of these substances as *despite* them. But, in any event, the fact is perfectly obvious that all these substances play an important, as well as a closely similar, part in our civiliza-

tion. And it requires no very deep reflection to realize that, since a person may use any or all of them and remain normal physically and mentally, or may produce physical and mental abnormality with any one of them, the question of their control or elimination is a most complex one.

A step in the right direction will be taken if we can get clearly in mind that the dipsomaniac is a diseased individual, quite different from the normal man who drinks in moderation. This abnormality has been recognized by physicians for years, but most persons are still unable to comprehend that there is an actual difference between the man who takes an occasional glass and the abnormal person with an uncontrollable, maniacal craving for stimulants, are unable to understand that one of these types may be sane and normal while the other is always abnormal and periodically insane.

This same kind of ignorance characterized the public attitude toward other forms of insanity until a little over a century ago. Insanity was regarded as something that must be beaten, frightened, or legislated out of the erring person's system. And it was not

until lunacy was recognized as a disease, and treated as a diseased condition, that any progress was made in curing it.

It is perfectly certain that until we recognize the cause of a condition, particularly a disease, we are not likely to discover a cure for it. And it is interesting to note that the truth of this is borne out by the results of attempts hitherto made to eliminate inebriety by haphazard treatment aimed at every one in general rather than at the inebriate in particular.

The results of this sort of legislation speak for themselves. The country has been flooded with literature and speakers detailing the evil effects of alcohol for more than a generation; we have laws in every state requiring that all school-children be taught the dangers of intoxicating liquors; and in rather more than fifty per cent. of the territory of the country it is forbidden to sell alcoholic beverages in any form.

And yet the average American today drinks more liquor than ever before in the history of our country—twice as much as in 1896, nearly six times as much as in 1850.

The most that we can say for the present methods of dealing with alcoholism, there-

fore, is that they have not succeeded. They have failed just as signally as did the laws which treated lunacy as a crime instead of a disease—and probably for the same reason. The law may prevent a homicidal lunatic from committing a crime by locking him up. But the restraint will simply prevent him from manifesting his disease in a particular way and will not remove the disease itself. The imprisoned lunatic will show his insanity by insane acts other than the particular one of homicide.

We find the dipsomaniac exhibiting the same sort of evidence that he is suffering from disease. When drink is denied him he seeks other outlets for his abnormality. And, unfortunately, he usually finds these in one or another of the narcotic drugs—substances far more easily obtained, much more harmful to the individual, and more dangerous to the community. Indeed, it has been demonstrated conclusively in many communities that the prevalence of drug-taking is directly dependent upon the difficulty in getting liquor.*

* There are at present at least 100 sanatoriums advertising treatment for drug addiction and it is well known that many thousands of cases are treated annually

On the other hand, there is practical evidence to support the assumption that when inebriety is treated as a disease, far better results will be obtained than if it is treated as a crime. In some of the states inebriates are given treatment in suitable hospitals instead of being sentenced to jail. The innovation is so recent and the statistics so meager in consequence that they offer only suggestive evidence. But it is certainly significant that Nebraska, which has for several years given inebriates special hospital treatment, shows a greater decline in the number of recent cases of insanity than any other state.

This state also shows a lower percentage of paupers and criminals than the adjoining state, Kansas, whose attitude toward alcoholism is radically different. And Cali-

by physicians in private practice and general hospitals. The writer knows of at least thirty so-called mail-order "drug-addiction cures," some of which apparently have a large patronage. The manager of one of these treatments stated that his company had 100,000 names, including alcohol addicts, upon its books. The number of drug addicts in the United States is variously estimated by those who are conversant with the situation at from 1,000,000 to 4,000,000: the latter number is probably excessive.

fornia, which has laws very similar to those of Nebraska, ranks second in the decline of new cases of insanity and first in the decline in number of insane persons per capita in her institutions for the insane. When we consider the close relationship between pauperism, crime, insanity, and inebriety, these records seem most suggestive.

TREATMENT OF INEBRIETY

I have dwelt upon the treatment of the inebriate as though that pathological individual represented the whole liquor problem, and his elimination (or cure) the key to temperance reform. That such is the case or, at least, that he is by far the most important item, is the view of modern alienists. Certainly with this abnormal person eliminated the problem would be greatly simplified.

"The normal man would not become a drunkard," said one of the speakers on temperance at the National Conference on Race Betterment, "though the choicest brand of liquor ran free in the fountain at every street corner. The man with the squint brain will

get liquor if he has to go through fire and water to get it."

But, although the intelligent treatment of inebriety is a most important link in the chain of defence against alcoholism, it cannot, of course, be regarded as a complete defence. Conditions that may lead to intemperance must also be corrected. The two conditions, however, should be attacked from entirely different angles, since one represents a disease, the other a normal condition. The point of view from which the inebriate should be regarded, just as in the case of the lunatic, should be a medico-legal one. The temperate drinker should be approached along educational lines.

The only practical method of treating the dipsomaniac at the present time is by isolation in some institution where proper medical treatment can be given, with confinement for a sufficient length of time to allow the diseased brain to adjust itself, so that the afflicted person may gain complete self-control. This presents no very serious difficulties.

But in addition we must also find some way of preventing the person with this defective brain from transmitting his defect

to offspring. For it is a well-established fact that the defect which made this man an inebriate may be transmitted and show itself as insanity, epilepsy, idiocy, or dipsomania in his progeny. The prevention of this, however, presents many practical difficulties, largely because we allow sentiment to overrule judgment. And yet this is one of the most important problems in eugenics. But treatment of dipsomania presents no insurmountable difficulties.

The really difficult problem is that offered by the vast army of normal persons, probably representing 95 per cent. of the adult male population of the country, who consider it their inalienable right to eat and drink what they please, and who do so on occasion. Any attempt to dictate by arbitrary legislation to this army about these sacred things is to flout all our knowledge of human nature. The most that we can possibly hope to do at once, and probably the only thing that is necessary, is to attempt to make men as rational about drinking as about eating, or the gratification of any other of the normal instincts.

"Doubtless overeating of protein foods

kills more people than overdrinking; yet we do not attempt to legislate eggs and beef and fish out of the market," said one of the Battle Creek temperance speakers. He might have added (being himself a medical man of wide experience) that even if we did legislate them out, the vast majority of people would find a way of getting them. Merely because a food or a drink is harmful and forbidden does not prevent persons from getting and taking it.

But there is a way to accomplish this reduction of the protein diet which physicians find successful where absolute interdiction fails. This is by offering some substitute protein that is less harmful—a perfectly practical expedient constantly employed by physicians.

The problem of alcohol presents almost precisely identical conditions. Certain forms of alcoholic drinks are infinitely more harmful than others, just as certain proteins are more harmful. The evil effects of beer and wine, for example, are greatly less than those produced by spirituous liquors, just as, in certain diseases, the effect of the protein in cheese seems to be less harmful than the

protein of red meat. In clinical practice it is perfectly easy to induce patients to substitute the less harmful protein for the more harmful one; whereas, if meat were interdicted without a substitute, the patient would "eat it whether it killed him or not."

These are some of the practicalities of treating certain pathological conditions; and the same sort of practical psychology should be exercised in controlling and guiding the appetite for alcoholic beverages. To forbid absolutely the use of liquor seems to insure its consumption. Our knowledge of the perversities of human nature suggests that this would be true; and the records of the liquor traffic confirm it. It would be no very difficult matter, however, to induce men to confine themselves to the milder beverages as a stepping-stone toward practical temperance reform, thus eliminating the more harmful ardent spirits.

TIME ELEMENT OF THE PROBLEM

But whatever the method attempted, we must understand that there is not the remotest probability of being able to accom-

plish any revolutionary effects immediately, except perhaps in the matter of curing, or eliminating, the chronic drunkard. The custom of drinking liquor, which has been practiced for thousands of generations, is much too firmly established to be suppressed immediately. But, fortunately, the habit of drinking the more harmful spirituous liquors is a comparatively recent one, and in all probability less difficult to eliminate.

In certain European countries * they seem to be making progress in this direction by placing a higher tax on the spirituous liquors and a higher license price for places in which such drinks are sold: in short, are placing practical obstacles in the way of selling ardent spirits without actually forbidding their sale. As a result the consumer must pay more for such liquors and, therefore, tends to buy the cheaper but also more hygienic beverages.

* The French Government issued an order early in 1914 (before the breaking out of hostilities) prohibiting spirituous liquors in industrial establishments, but specifically allowing beers, light wines, mead, perry, cocoa, tea, and coffee.

At about the same time measures were adopted in Great Britain and in Germany which were designed to curtail the consumption of spirituous liquors and encourage the manufacture and consumption of light beers.

Since this method seems to work well in Europe there is no economic reason why a similar method should not be tried in this country.

At the same time intelligent efforts should be made to keep alcoholic beverages of all kinds out of the hands of minors. For, in its final aspects, the liquor problem is pre-eminently one of adolescence. The youth who does not taste liquor until his majority minimizes the danger of acquiring the habit in a dangerous form; and the man who does not drink until thirty is in very little danger of ever becoming a drunkard.*

Restricting the sale of intoxicants to adults presents no very serious difficulties so far as the places for public sale are concerned, most

* One of the distressing features of the illicit sale of intoxicants in prohibition territory is the fact that this class of lawbreakers have little compunction about selling liquor to minors. This will be referred to in a later chapter in considering juvenile crime and delinquency in certain states. But the following item from the Toronto *World*, of June 21st, 1913, is directly pertinent:

"In the last four and a half years alone, not counting the previous period, there have been 1,282 drunks arrested in New Glasgow, and 213 arrests of blind piggers and pocket peddlers. A large number of these were convicted. Several hundred of these arrests were of boys or young men between the ages of fifteen and twenty-two.

CHAPTER II

LEGISLATION FROM A MEDICAL VIEWPOINT *

ONE of the greatest problems confronting physicians and legislators today is the control of narcotics. For, after making due allowance for the exaggerated reports of alarmists, we find that the increased consumption of alcohol, of opium products and cocaine, has assumed menacing proportions in certain communities. And it is significant that the communities in which the drug epidemic appears to be most prevalent are the ones in which the sale of alcohol is prohibited.

One would be led to suppose from newspaper reports that the densely populated re-

* This chapter appeared as an article in *Everybody's* Magazine for August, 1914. It received a second prize in the *Everybody's* contest to determine "What We Know about Rum." There were nearly 8,000 competitors in this contest.—THE PUBLISHERS.

gions are the pestilence centers of drug addictions. But government and state reports show that even such a thickly inhabited state as New York, including the city, and her sister states, Massachusetts and New Jersey, seem like paragons of abstemiousness when compared with some of the rural states.

Thus, according to the last official reports of New York, there was one insane drug-taker to every 386 cases of other forms of insanity in the insane hospitals. Meanwhile a corresponding report from Oklahoma shows that in her institutions the proportion of drug-takers to all other cases of insanity is one to nine—a proportion more than forty to one greater than New York.

It has long been held by the advocates of tolerant liquor legislation that an attempt to suppress liquor traffic always results in the increase in the abuse of other forms of narcotics. The record of Oklahoma, which is a prohibition state, seems to confirm this opinion. Let us see what the records of the other prohibition states show.

In Maine the proportion of drug-takers is 1 to 76; in Georgia, 1 to 42; in Kansas, 1 to 89; in the North Carolina state hospital,

1 to 84; in the Eastern State Hospital, Tenn., 1 to 74; in one of the Mississippi state hospitals, 1 to 23; in Oklahoma, 1 to 9. In other words, these thinly populated prohibition states have from four to forty times as many insane drug-takers as unregenerate New York.

It will be observed that, with the exception of Maine and Kansas, these states are the ones having large negro populations. And one naturally assumes that the colored man must be in some way responsible for their bad showing. But the records exonerate him of this charge—at least as regards the drug-takers confined in asylums. For most of these victims, even in the South, are white.

When we turn to the records of penal institutions, however, we find a very different story. The cocaine-taking negro, it appears, seldom reaches the insane hospital. His career ends, temporarily or permanently, in the jail, penitentiary, or death-house. And the records of these institutions, as I know from personal observation, confirm the reports that the cocaine habit has assumed the proportions of an epidemic among the colored people.

WHERE DOES THE NEGRO GET IT?

In every state, North and South, there are laws forbidding the indiscriminate sale of cocaine. Moreover, these laws are fairly well enforced in most localities, at least in the legitimate channels of trade. Where, then, does the negro get his supply?

In one of the Tennessee districts the officers observed that the periodic visits of a certain negro were followed invariably by unusual activities among the "dope-takers." This negro was always well-dressed and had a penchant for gaudy-colored vests. But when arrested nothing was found in his pockets to indicate that he was a cocaine peddler. In examining the flashy vest, however, one of the officers discovered that the broad strip of braid forming the binding of the edges contained something that felt like sawdust, and, on ripping this open, poured out a full ounce of the "happy dust"—about one thousand average doses.

Further investigation showed that the garment was honeycombed with cavities running along the seams, with a total capacity

of fully three ounces, or three thousand doses —a quantity that represented three hundred dollars in returns, when retailed at ten cents a sniff. The records abound with hundreds of examples of similar clandestine methods. The drug is infinitely easier to smuggle than its bulky rival, alcohol; and the negro must have one or the other.

EFFECTS PRODUCED BY THE DRUG

The first and most characteristic effect of cocaine is a mild intoxication which produces a feeling of well-being or even ecstasy. But, whatever the degree of exaltation, it is followed inevitably in a few hours by a most distressing and frightful depression. Since a sniff of the drug relieves this depression immediately it serves the double purpose of producing pleasure and averting distress.

Even a few doses of the drug blunt the moral sense. The cocaine fiend lies without compunction and feels no remorse when his falsehoods are detected.

Moral obtuseness is an early symptom, but it is unlikely to be detected, since a direct question about the habit would hardly be

asked unless there were good grounds for suspicion. There are many persons in the upper walks of life who have been addicted to the drug for years without arousing suspicion. But eventually their wrecked physical and mental condition reveals their secret.

It was said a moment ago that the first effect produced by cocaine is a mild intoxication. In the negro, however, this intoxication frequently becomes a homicidal frenzy—not the purposeless delirium of the ordinary lunatic, but the cool, calculating, diabolical mania of the fiend. This type of cocaine madness is responsible for most of the wholesale killings that have occurred in the South in recent years, and gives Southern officers no end of trouble.

Curiously enough, the cocaine which throws the victim into a frenzy increases the vitality to such an extent that "ordinary shootin' don't kill him," as the officers say. And this observation of the officers is confirmed by clinical observation and laboratory experiment.

In addition to the increased resistance, the drug produces still another effect that makes the fiend peculiarly dangerous. It seems to

improve his marksmanship. A few drinks of whisky make a man wabbly and spoil his scores. Not so with cocaine. The two cocaine fiends in Harrison, Miss., who scored nine outright kills and many more hits last summer certainly were not wabbly.

Thus we see that cocaine produces four distinct conditions in the habitué, any one of which makes him dangerous. It produces delusions and hallucinations that make him homicidal; it gives him courage, increases his resistance, and steadies his hand and sharpens his eye for carrying out his homicidal intent. It is difficult to conceive a more diabolical combination.

WHY THE HABIT FLOURISHES

Undoubtedly, the evil effects of cocaine-taking are appreciated by most negroes, at least to an extent commensurate with their intelligence. Why, then, do they take it? And why has it suddenly become popular?

The first question can be answered in a sentence. The negro takes it because he has a craving for some form of stimulant like most other human beings. The second ques-

tion is usually answered by the drug-taker himself by the statement that he took the drug because he couldn't get liquid stimulants.

Of course the drug fiend is proverbially untruthful. But in this instance his statement coincides with the opinions expressed by the officers and physicians who are most familiar with the situation. And it is certainly significant that in such cities as Raleigh, Asheville, and Knoxville, where prohibition is rigidly enforced (at least as far as the negro and poor white are concerned), cocaine-taking is rampant and increasing; whereas, in Memphis, which is "wide open" despite the prohibitory statute, there are comparatively few drug fiends, and their numbers are not increasing. These facts and the insane-hospital records referred to a moment ago seem to show very conclusively that there is a direct relationship between prohibitive legislation and drug-taking.

However, if prohibition influences one form of disease, we should be able to demonstrate its influence upon other diseases, since alcoholic excesses are held responsible for so many pathological conditions. If the con-

sumption of the stronger liquors is materially lessened in prohibition territory there should be a corresponding decrease in certain diseases for which whisky is responsible directly or indirectly.

INSANITY AND PROHIBITION

Opinions differ as to the responsibility of alcohol in causing many diseases. But it is a universally accepted belief that alcohol is an important factor in producing insanity. Fortunately for our purpose, the records of mental diseases are more complete and authentic than for any other class of ailments. Let us see what some of these records show.

In a recent Bulletin issued by the Census Department a comparative table of insanity is given by states. There were eight prohibition states at the close of the census period: Maine, Georgia, North Carolina, Tennessee, Mississippi, Oklahoma, Kansas, and North Dakota. Comparing the gain or loss in admissions to insane hospitals in these states with their immediate neighbors we find the following significant records: Maine increased 21 for every 100,000 inhabitants,

while New Hampshire decreased 7; North Dakota decreased 9, while South Dakota increased 3; Georgia increased 1, while Florida decreased 8; North Carolina increased 11, while South Carolina increased only 4; Tennessee increased 14, while Kentucky increased 12; Mississippi increased 9, while Alabama increased only 4; Oklahoma increased 20, while Texas increased 15; and Kansas decreased 10, while Nebraska decreased 28.

Thus it appears that each prohibition state has a worse record than its immediate neighbor in the number of cases of insanity, with the single exception of North Dakota.

It may be objected that these comparisons are not wholly convincing, although certainly significant, since even adjoining states may differ in the number and character of their inhabitants—conditions that influence the insane populations very materially. But no such objection can be raised against a comparison between such states as Kansas and Nebraska, for these states have practically the same geographical location, number of native whites, negroes, foreign-born whites, ratio of males to females, percentage of urban

population, and percentage in increase of rural population—are, indeed, more closely alike for statistical comparison than any other two states in the Union.

To summarize briefly, then, we find that drug addictions and insanity, including the special forms of mental diseases directly attributable to alcoholism, seem to flourish best in prohibition territory, without a compensating decrease in the number of any other maladies. From a medical and hygienic standpoint, therefore, prohibitive legislation cannot be regarded as being more beneficial than some of the more tolerant forms.

CHAPTER III

THE PEACE AND WAR FOOTING OF ALCOHOL *

THE physiological and pathological effects of alcohol have probably been more thoroughly investigated, contended over, and disagreed about during the last quarter of a century than almost any other subject. Physiologists and chemists have studied the action of alcohol upon normal organs; pathologists and clinicians have investigated its morbid and therapeutic effects; and its moral and economical significance have been subjects of contention that rivals the religious and metaphysical discussions of the Middle Ages.

Yet the net results of this active fermentation—that is, the actual facts about which all the investigators agree absolutely—may be summed up in the simple statement that ex-

* Reprinted from the *Medical Record* of August 7th, 1915.

cessive quantities of alcohol are harmful. A similar statement may be made about at least a hundred other substances. Nevertheless, a certain number of positive discoveries have been made, and a somewhat larger number of fallacious pathological and therapeutic bubbles have been definitely pricked.

Events in Europe during the last few months have added material for digestion. Thus the edicts of certain governments against the sale and manufacture of distilled liquors emphasize the belief among physicians that the effects of concentrated beverages are especially harmful. But perhaps the most disconcerting, as well as one of the most important events in recent years, in its bearing on the problem was the discovery that paresis is caused by syphilis, not by alcohol, as widely believed heretofore.

This discovery, although intrinsically important, is even more so in its implication. This implication is, obviously, that there may be other pathological conditions where the verdict against alcohol seems quite as justifiable as in the case of paresis, but in which the decision may be changed at any time by the higher court of investigators. Indeed, sev-

eral similar decisions have been handed down recently. But, although such decisions tend to clarify the atmosphere in certain regions, the general effect is somewhat disconcerting.

POSITIVE AND NEGATIVE FINDINGS OF THE COURT

The verdict against large quantities of alcohol as a poison is confirmed beyond question. But the cases involving the poisonous effects of small doses is more complicated. Thus, we may measure the action of large doses of alcohol by a series of definite effects, whereas the results of persistent small doses can seldom be measured by specific and uniform pathological conditions. In this respect, then, alcohol differs from most substances officially rated as poisons.

There is, of course, a great difference in the effects of a large dose of any poison and small amounts of the same poison distributed over a long period. Lead, arsenic, mercury, and opium offer examples of this. But even slow poisoning by these substances can be measured in pathological terms with reasonable accuracy. Such is not the case with alcohol,

however. What particular organ of the alcoholic will succumb, or whether any organ will be demonstrably affected at all, is entirely a matter for speculation. The drunkard may develop nephritis, or cirrhosis of the liver, or multiple neuritis, or pay one of a dozen other seeming penalties. Yet any of these conditions may be produced by some agency other than alcohol, since the total abstainer is not immune. Indeed, exhaustive investigations raise strong doubt in many cases, where formerly the circumstantial evidence was regarded as convincing.

The effect produced upon blood by alcohol is a case in point. It has been asserted repeatedly that alcohol causes the blood corpuscles to shrink, "lose their round form, and become ragged," as stated by Henry Berg. The recent experiments of Jaillet, Evelin, and Quensel, however, absolutely refute this; and Quensel makes the definite assertion that "in investigations made upon human beings who have misused alcohol, no morphological changes in the blood have been proven."

The effect produced upon the normal liver by alcohol seems entirely enigmatic, although

our predecessors confidently stamped cirrhosis as "drunkard's liver." Recent and more scientific investigations, however, fail to find complete justification for this stigma. Thus Baumgarten found cirrhosis of the liver in only 6 per cent. of autopsies among hard drinkers; and Fahr found only a trifle over 4 per cent. (thirteen cases in three hundred and nine autopsies). From their investigations it appears that total abstainers suffer from this disease about as frequently as alcoholics.

Investigations of cases among moderate drinkers offer confirmatory evidence. The official statistics of the hospitals in Sweden, for example, show that there were 21 deaths from cirrhosis of the liver annually to 10,000 patients. Considering the character of the cases investigated, the evidence seemed sufficiently conclusive to the investigators, who state that, "as a basis for the hypothesis that a moderate use of alcohol may originate the disease, the number of cases is exceedingly small; the number found seem to furnish a direct proof for the incorrectness of such an assumption."

However, these conclusions need not re-

move the suspicion that the abuse of concentrated alcoholic drinks may be an etiologcal factor in cirrhosis, even if not a specific cause, although animal experimentation has failed to demonstrate such action. Yet cirrhosis seems to have decreased in recent years, while the per capita consumption of alcohol has steadily increased. Possibly the universal change in diet may be a factor. But Lambert attributes this decrease in the disease to "the more general use of malted liquors," making the obvious implication that concentrated alcoholic drinks may cause the disease, although the lighter beverages do not.

The case against alcohol as the cause of organic heart disease will not stand close scrutiny. Indeed, our knowledge of the toxic action of certain proteins and other nutritive agents, makes it fairly certain that, at most, the action is indirect, and of no more importance etiologically than many staple articles of diet. Functionally, the heart is affected by alcohol, like other muscles of the body, through the central nervous system—that is, the immediate effect on the heart's muscular effort is "to diminish the efficiency

of the individual contractions, and the remote effects, to delay the onset of fatigue. Under its influence the muscle contracts less perfectly from the start, but continues at this slightly lower level for a longer time, with the result that more work is performed before it becomes exhausted."

The clinical value of alcohol, therefore, is well recognized; but there seems to be no evidence to support the contention that even chronic alcoholic abuse produces organic heart changes.

The old conception of alcohol as a direct etiological factor in diseases of the blood-vessels, particularly arteriosclerosis, has been recently reversed. The older writers stated positively that alcohol is a direct cause of arteriosclerosis; but recent investigations all tend to refute this. Thus Cabot, reporting on these conditions, states that "only 6 per cent. of 283 cases of chronic and excessive alcoholism under fifty years of age showed any evidence of arteriosclerosis." And, "of 45 cases of arteriosclerosis examined by me at the Massachusetts General Hospital only 13 per cent. gave a history of alcoholism." In the opinion of Louis Fagueres Bishop,

"pure alcohol, well diluted and taken in appropriate quantities with relation to food, probably has no effect" in producing arteriosclerosis. While the investigations of Lancereaux, Duclos, Orth, Schell, and Fahr offer evidence that not only may arteries in pronounced drinkers show an absence of arteriosclerotic changes, but also that arteriosclerosis is not found earlier or to a greater extent in alcoholics than in other persons.

The close relationship between diseases of the heart and blood-vessels suggests that the conclusions about alcohol as an etiological factor in nephritis would be practically the same as in the case of the other organs. This appears to be the case. In a comparative series of cases investigated by Lafont, for example, there were 6.3 per cent. cases of nephritis among alcoholics, while in non-alcoholics there were 7.3 per cent. Even where nephritis was present in alcoholics the etiological factor was so doubtful that Lafont stated, "we cannot assert that nephritis in alcoholists is of alcoholic origin." In Fahr's series chronic nephritis caused the death of but eight cases, and was less commonly noted

than among the non-alcoholics. And Hultgren, in a long series of investigations, found no evidence of nephritis in 85 per cent. of alcoholic cases, and concludes that the tissues eliminating alcohol, such as the kidney, suffer less from its effects.

Probably the most exhaustive investigation of this question has been made recently in Leipzig, with the net result that no specially prominent influence of alcoholism was established over that of other substances. In this investigation the cases were divided into age groups, and although the age class between twenty-five and thirty-four showed a slight difference unfavorable to the alcoholic, the difference was so slight that the general conclusion was not affected in view of the showing in the other classes. In this connection, it should be borne in mind that the subjects investigated were not merely habitual drinkers, but confirmed alcoholics.

Our knowledge of the effects of alcohol upon the gastro-intestinal tract is apparently somewhat more definite, or, at least, positive, in character than in the case of most others of the important organs. Our present knowledge is summarized in the suc-

cinct statement that "gastric digestion is not materially affected by moderate amounts of beer and wine of low alcoholic content, and they may even promote digestion; but brandy and whisky, containing about 50 per cent. of alcohol, interrupt digestion when taken in sufficient amount, and digestion is not resumed until the concentration of the alcohol is reduced sufficiently through absorption, or diluted with the gastric contents."

It is also accepted as a physiological fact that small amounts of alcohol are absorbed rapidly from the gastro-intestinal canal, and favor the absorption of other substances, while larger amounts of concentrated liquors produce the opposite effects. with resulting disorders.

The objective effects of alcohol upon the central nervous system are so definite and characteristic that an analysis of these effects would appear relatively simple and demonstrable by pathological findings. But such is not the case, particularly as regards the effects of small quantities of alcohol. Thus Binz and his followers hold that alcohol stimulates the nervous system; Schmiedeberg

maintains that its action is wholly depressant; and pathologists assert that organically, at least, small quantities of alcohol produce no effects whatever. Moreover, there is no uniformity in organic changes, even in cases of marked alcoholic abuse. In delirium tremens, for example, such investigators as Bonhöffer, Trommer, and Lambert find no specific pathology by microscopic examination.

On the other hand, there are certain fairly constant organic changes, such as hyperemia of the membranes, cloudy thickenings and adhesions of the pia, edema, minute hemorrhages, and perhaps actual degeneration of the cells and fibers, which are often the concomitants of inebriety. And although it may be fairly pointed out that these changes are also produced by other toxic substances, and that none of these conditions are constant even in alcoholics, we are justified in the belief that these changes may be produced by alcoholism.

It appears, therefore, that the demonstrable organic changes produced by excessive quantities of alcohol are confined almost exclusively to the nervous system and the

alimentary tract. Definite organic changes in the blood, blood-vessels, heart, liver, kidneys, and muscular system have not been demonstrated. So far as we have been able to demonstrate, specific changes are not produced.

EFFECTS PRODUCED UPON PATHOLOGICAL STRUCTURES

The moment we consider the effects of alcohol upon pathological structures, however, particularly the effects of concentrated liquors, we find ourselves on firmer ground. It is generally accepted without reservation that any considerable quantity of ardent spirits is harmful in cases of heart disease, nephritis, arteriosclerosis, diabetes, and many other pathological conditions. The fact that other substances, such as tea, coffee, tobacco, and certain foods, also act detrimentally in these conditions indicates that the action of alcohol is not that of a selective poison, but rather one of a group of substances whose action upon pathological structures differs somewhat from the physiological effects.

Similarly, we have a striking example of the effects of alcohol upon abnormal structures in the alcoholic insanities. Probably alcohol acts in these cases as the spark for igniting the mental powder-mine, which results in disrupted mentality, with characteristic manifestations. Perhaps the explosion would have occurred without this particular spark; for it is the concensus of opinion among psychiatrists that the train itself was already laid. In short, that the person in whom the use, or even abuse, of alcohol produces insanity is mentally unstable; and conversely, the person of normal mental stability seldom, if ever, develops an alcoholic psychosis.

Moreover, it seems pretty clearly established that, even in cases of unstable mental equilibrium which develop into alcoholic insanity as the immediate result of alcoholic abuses, the kind as well as the quantity of beverage consumed is an important factor. An overwhelmingly large proportion of persons who develop alcoholic psychoses in America are drinkers of whisky, or some corresponding ardent spirit, whereas this condition is seldom seen in beer and wine

drinkers. This difference is so pronounced that the drinking habits of the different nationalities may be pretty accurately measured by the heterogeneous asylum populations in this country.

Thus we find the highest percentage of alcohol psychoses among the whisky-drinkers who come from western Europe, while the wine and beer drinking races of central and southern Europe show a distinctly lower percentage, in some instances only about one-fourth as many per thousand.

There are undoubtedly other factors besides the kind of liquor which must be considered in explaining this difference in race susceptibility to alcohol. But it is evident that quantity of alcoholic content in the beverage, and quality of mental endowment, are highly important elements.

The deleterious effects of alcohol in certain pathological conditions suggest its value as a therapeutic agent in others. This value is, of course, recognized universally among clinicians. Yet, therapeutically, as well as physiologically and pathologically, alcohol presents some curious paradoxes even in the

course of the same disease. Take the case of diabetes, for example. Apparently alcohol plays no direct part in the etiology of this disease. But once the disease has developed, the harmful effect of liquors having a high alcoholic content, such as whisky or brandy, is unquestioned. Yet there are phases of diabetes in which a veritable drenching of the system with whisky lifts the patient over an abysmal chasm. At these critical periods von Noorden "advises no food, but large quantities of whisky. . . . He calls these days 'alcohol days,' and says that it is astonishing how well large quantities are borne even when the patient is not accustomed to them. It is followed by a large reduction of ketonuria and the general condition of the patient is greatly improved."

This and kindred clinical experiences simply emphasize the complexities of the alcohol problem from a medical standpoint. In therapeutic effects, as in physiological and pathological manifestations, our knowledge is still largely empirical, which, from a strictly scientific point of view, is rather haphazard and peculiarily dependent upon personal prejudice.

THE WAR STATUS OF ALCOHOL

A leaf from the book of the great war shows the status of alcohol from a European standpoint. We see the warring nations issuing sweeping edicts against the sale and manufacture of distilled liquors, thus emphasizing the deleterious effects of concentrated alcoholics as a social factor, and presenting a unique feature of modern warfare. But following this we are given abundant evidence of the belief in the therapeutic value of alcohol by the action of these governments. England, urging temperance upon her soldiers and civilians, sends liquor to the trenches and hospitals in hundred-thousand-gallon lots.* France, having interdicted the use of

* According to the *British Medical Journal* 2½ ounces of rum are issued to each man in the British Army twice a week. For men in the trenches, this allowance is increased to 3 ounces twice a week under ordinary weather conditions and to 2½ ounces daily in very bad weather, making a minimum of 5 ounces a week and a maximum of 17½ ounces. The regular ration of 2½ ounces is estimated to contain 25.5 grams of alcohol. The French soldier receives daily 50 grams of rum containing 20 grams of alcohol. The German soldier is allowed 1,793 grams of beer and 20 grams of brandy a day. The beer, which is of the ordinary lager variety, has a low alcohol content of

absinthe, increased the daily wine ration of the soldiers. Germany, first closing all bars until mobilization was effected, then lifted the edict against beer, and encouraged this gift to armies and hospitals. And Russia expressed the universal sentiment against the use of concentrated liquors by a sweeping and permanent (it is to be hoped) edict against the deadly vodka.

This action of the great European powers suggests an attitude towards alcohol legislation that is wholly novel, at least in America. The action was discriminatory against a certain class of alcoholics that is entirely justified by clinical experience. But it is a curious commentary on American legislative acumen that this rational first step to abolish alcoholism should be taken in countries where an appreciation of the urgency of some reform is of recent origin, rather than in our own country where the quest for some practical legislative control has been acutely active for years.

If we consider war as a pathological condi-

only about 3.5 per cent., but this quantity would amount to a total of 70.7 grams of actual alcohol a day. Austrian soldiers receive each day 0.5 liter of wine, equivalent to 40 grams of alcohol.

tion, the action of these belligerent governments in regard to alcohol may be considered as a therapeutic measure, confirming the belief that alcohol is a useful remedy, even though a harmful economic factor. But war is only pathological from a political standpoint. Physiologically, it is precisely the reverse; for the effectiveness of an army is dependent upon the physical perfection of its units. When, therefore, the European governments encourage the use of a certain kind of beverage among these units, and forbid others, it is not for the purpose of correcting a pathological condition, but to enhance a physiological one. In short, the beverages are not given as medicine, but as nourishment.

The use of alcohol in the military hospitals seems to accord with the practices in civil hospitals. Ardent spirits have lost ground in popularity, and the lighter beverages are distinctly favored by the military surgeons, this attitude presenting a striking contrast to the attitude of the surgeons in former wars. In our Civil War, for example, whisky and brandy were used in tremendous quantities, wine to some extent, and malted beverages

scarcely at all. In the European war this order of precedence seems to be reversed.

Thus the tendency of war, like the tendency in civil life, is to condemn, or restrict, the use of ardent spirits, therapeutically and generally. There is a lesson in this quite outside the field of medicine that may well be taken to heart.

CHAPTER IV

SOME ASPECTS OF LIQUOR LEGISLATION

A CRITICAL survey of liquor legislation in America is now possible, thanks to the United States Census Bureau's exhaustive reports on conditions that are influenced by this legislation, directly and indirectly. Heretofore there have been no reliable data available. The Census Report, and other government records, now offer authentic bases for accurate comparisons and reasonably accurate deductions.

Although these reports do not show the exact areas in which the various forms of liquor legislation prevail, it is evident that the prohibitive form of legislation has been making almost uninterrupted progress in the country as a whole, particularly during the last fifteen years. It is claimed by the partisans of this form of legislation that fully

75 per cent. of the area of the country is now legally "dry," and that 50 per cent. of the people now live in territory where the sale of any form of alcoholic beverage is absolutely prohibited. Even the opponents of this form of legislation admit that these figures are substantially correct.

Yet it appears that the consumption of alcoholic beverages is steadily increasing. Stated exactly, the per capita consumption in 1900 was 17.76 gallons; in 1914 it had risen to more than 23 gallons. Furthermore, this increase appears to have been much greater in the consumption of the potent distilled liquors than in the lighter beverages. Thus the reports of the Internal Revenue Department show that in 1896 a total of 33,859,339 barrels of fermented liquors were consumed; in 1913 this amount had increased to 65,324,876 barrels. During this same period, however, the consumption of distilled spirits increased from 60,635,356 gallons (in 1896) to 143,220,056 gallons (in 1913). In other words, the consumption of the lighter beverages did not quite double in quantity during seventeen years, while the distilled spirits more than doubled in actual quantity pro-

duced, and increased 76 per cent. in actual per capita consumption.

No thoughtful person interested in the cause of temperance can view these government statistics without misgivings. If the net result of unparalleled activity in liquor legislation is an actual and tremendous increase in the consumption of alcohol, something must be radically wrong, either with the people or with their legislation.

If we assume that the prohibitory laws are effective in preventing the use of alcohol, it follows that the increase in the per capita consumption of alcohol must have been in the remaining territories. In other words, that the 50 per cent. of the country's inhabitants living in territories where liquor may be obtained legally did not merely double the amount of their alcohol consumption, but quadrupled it. Of course no one seriously contends that there is any such disproportion in liquor consumption. And as I shall show in a moment, there is very convincing evidence that the "dry" regions consume their full quota. Even by process of simple subtraction it is possible to reach very definite conclusions. The government keeps accu-

rate records of the actual amount of liquor consumption in the country as a whole. There are fairly accurate records of the consumption of liquor in communities where liquor is legally sold. Obviously, the difference in the amount represented by these figures will represent the liquor consumption in the "dry" territories.

Moreover, the government taxes retail liquor dealers and keeps careful record of the number of such dealers in each state, regardless of local legislation. These records offer corroborative evidence of a most significant character. Thus, it is recorded that in 1913 1,610 Federal licenses were issued in the prohibition state of Georgia, 728 in North Carolina, 1,381 in Maine, 415 in Mississippi, 761 in North Dakota, 2,855 in Tennessee, 1,050 in Oklahoma, and 766 in Kansas.

Approximately 10,000 persons, then, were virtually licensed by the government to traffic in liquor in these thinly populated states where such traffic is prohibited. No one will question that a high proportion of these licensed liquor dealers carried out the purpose for which the licenses were secured even though direct evidence as to the exact

amount of individual sales is not available.

The police records of such communities, however, offer direct evidence of liquor traffic which is most specific in character. Thus the records of arrests for drunkenness, which are kept in all police courts, are positive and unequivocal evidence of the consumption of intoxicants. And it is significant that these records of intemperance appear in about the same proportion to the number of population in all communities of corresponding size regardless of the particular form of liquor legislation in vogue.

For example, the police records of Kansas City, Kansas, where the sale of liquor is forbidden, and Omaha, Nebraska, where liquor is sold, show that in 1913 there was one arrest for drunkenness to every forty-eight inhabitants in Kansas City, while in Omaha the proportion was one to fifty-four. Here the record for sobriety is somewhat better in the city where open liquor traffic is permitted. On the other hand, the records of Topeka, Kansas, and Lincoln, Nebraska, reverse these relative proportions, Topeka having one arrest for drunkenness to about every eighty

inhabitants, while in Lincoln there was one arrest to every seventy. Other cities in these two states show corresponding differences without any pronounced advantage one way or the other, either in the number of arrests or in police expenses.

Police records of the various cities throughout the country are closely similar to these. Moreover, these records are open to every one, and afford direct evidence that is most significant. Yet it does not appear that these precise records have been utilized to any considerable extent in attempting to determine the effects of liquor legislation. Indeed, the tendency of partisan organizations is to rely on positive general statements which are not supported by official records. For example, there was published last year in the annual booklet of a certain temperance organization a list of 122 towns and cities scattered across the country whose records for sobriety were cited specifically as exemplifying the efficiency of prohibitive legislation.

Let us consider for a moment what the police records of these towns and cities offer to corroborate the general statements about their exemplary records.

It appears from these police records (furnished in each instance by the chief of police) that the average number of inhabitants in these 122 places was 17,200; and that the aggregate number of arrests for the year referred to was 143,720, of which 47,615 were arrests for drunkenness—one arrest on some charge for every eight voters in the community, about one-third of these arrests being on the specific charge of intoxication. Stated in this way, the records of these places appear in a somewhat different light. For it is possible to select a similar number of liquor-selling cities in which the total number of general arrests as well as the arrests for drunkenness are lower.

Yet these 122 cities are cited as practical demonstrations of the beneficent effect of prohibitive legislation. Their actual records of intoxication, however, fail to demonstrate this alleged beneficence.

In this connection the police records of several hundred cities for this same year, collated recently by Dr. Henry Smith Williams, are illuminative. To quote in part from this summary:

"The city of Bangor, Maine, with a popu-

lation of 24,803 had 3,082 arrests in this one year, or 1 to 8 of the population; and of these arrests, 2,617, or 1 to 9 of the population, were for drunkenness. A summary of the records for 35 towns and cities in the prohibition states of Maine, Georgia, North Carolina, Tennessee, and Oklahoma, with an aggregate population of 7,704,616, shows total arrests to the number of 76,974, or 1 to 9.2 individuals of the population; of which 25,504 arrests, or 1 to 27.6 of the total population, were for drunkenness.

"Stated otherwise, in these 35 towns and cities with an aggregate census of not far from three-quarters of a million, scattered through 5 prohibition states, there were 18 arrests for drunkenness for every 100 adult males of the population.

"It may be added that towns nominally 'dry' under local option everywhere give corresponding evidence of the presence of alcohol. For example, 37 'dry' towns in Massachusetts, with an aggregate population of 719,114, had 1 arrest for every 48 inhabitants; 14 Ohio towns aggregating 109,839 souls, 1 to 47.7; 2 Pennsylvania cities with 56,204 residents, 1 to 42; 2 Virginia

towns with 12,872 residents, 1 to 16; 5 Ohio towns with 66,247 residents, 1 to 29.5; and 8 California towns with 131,680 residents, 1 to 33.8. The aggregate census of these 76 local-option towns scattered through 7 states not under general prohibition, from Mississippi to California, is 1,184,729; the total arrests in a year numbered 49,392, or 1 to 24 individuals of the population; the arrests for drunkenness were 17,593, or 1 to 67.3 of the total population; approximately 1 to 14 families. This is not precisely what one should expect from towns where, supposedly, no liquor is to be had.

"Combining the records just examined, we have to do with 111 'dry' towns scattered through 13 prohibition or local-option states from Maine to California. The total population of these towns is 1,888,365; the arrests number 126,369, or 1 to 14.1 of the population; arrests for drunkenness number 43,097, or 1 to 43.8 of the total population. This gives approximately 1 arrest to every third family; and 1 arrest for drunkenness to every ninth family. A diversified population is under consideration; the numbers are large enough to be dependable. The

results are, to say the least, thought-provocative."

These statements apply merely to the more obvious effects of alcohol, the direct manifestations. But there is abundant corroborative evidence, less direct, but quite as tangible and convincing. I refer to the records of crime, disease, degeneracy, and pauperism that accompany alcoholic abuse or follow in its wake. Fortunately, the government takes official cognizance of these conditions and makes public records of its observations.

These conditions are regarded as very accurate indexes to a community's sobriety, and are referred to constantly by the promulgators of every form of temperance propaganda. The number of criminals and paupers, the amount of illiteracy, the general state of prosperity—all these conditions are referred to constantly, particularly in political campaigns in which the question of liquor legislation plays a conspicuous part.

Thus in the recent political campaigns the records of prohibition states were used as partisan capital by all factions. Statements made by political orators in the heat of a

campaign need not be taken too seriously. But when the smoke of conflict has cleared a little it is well to take stock of actual conditions. The actual records of states such as Maine and Kansas, in which prohibition legislation has been tried for many years, surely afford means of fairly accurate comparisons. That the experience of Maine has not been altogether a happy one is generally conceded. But Kansas' record for prosperity, enlightenment, and good citizenship has been cited so often as exemplary, and in contrast to her immediate neighbors, that the actual facts as presented by the government census report are worth serious consideration.

Take the matter of illiteracy. This report shows that the number of persons over ten years of age who were illiterate in Kansas was 28,968, or 2.2 per cent. of the population. Nebraska had at that time 18,009 illiterates, or 1.9 per cent. of the population. Furthermore, this discrepancy was not confined to any particular class, as in some states, the number of native whites of native parentage who were illiterate being .8 per cent. of the population in Kansas as against .6 per cent. in Nebraska, with other classes in proportion.

Thus Nebraska makes a far better showing than her southern neighbor. And there are 15 other states in the country having a lower percentage of illiteracy than Kansas according to the official report.

The proportion of illiteracy among native inhabitants is of peculiar significance since in some of the other states the high percentage of illiteracy is dependent upon the influx of foreigners who are too old and too ignorant to acquire an education.

The explanation of the condition in Kansas is indicated by the relative number of children between the ages of six and twenty who attend school. The state capital, Topeka, may fairly be compared with the state capital of Nebraska, Lincoln, since these cities are almost the same in size, and the number of children of corresponding age practically the same—that is, 11,198 and 11,049, respectively. Of these, 6,829, or 61 per cent., attended school in Topeka, while in Lincoln there were 7,675, or 69.5 per cent., attending school. In other words, there were nearly a thousand less children attending school in Topeka than in Lincoln at a corresponding period—certainly a significant discrepancy

between cities having a population of less than 45,000 inhabitants.

These figures do not seem to substantiate the campaign orator's reiterations that Kansas had "closed the saloons and opened the school-house doors," at least as regards the educational portals. Moreover, there is evidence in the same government reports which arouses the suspicion that, even if the main entrances to the saloons were closed, there were other doors less securely fastened. Kansas' record of lawlessness, as shown by her criminal records, seems to warrant this conclusion. For the close relationship between the abuse of alcohol and crime is generally admitted. Indeed, even opposing political partisans agree on this one point—agree that the amount of crime in any community is a fair index to its abuse of alcohol.

It seems significant, therefore, that government census reports show there were 1,971 prisoners and juvenile delinquents in Kansas at the same time that there were only 789 in Nebraska. Or, stated in another way, if the citizens of Kansas were as law-abiding as those of Nebraska in proportion to the number of inhabitants there would be

only 1,184 prisoners instead of 1,971—a difference of 787.

It should be noted, also, that Kansas has 1,400 native whites among her prisoners, while Nebraska has only 569, showing conclusively that the "foreign element" was not responsible for this western state's bad record, as it is in some eastern communities.

Another kind of evidence that is always suggestive of the abuse of alcohol is the amount of pauperism in any community. Indeed, the records show that the relative proportion of paupers to criminals in any community is very constant. Such being the case, we should expect to find that Kansas with her higher percentage of criminals and illiterates would have also a larger almshouse population than Nebraska. The government census investigators found this to be the case. There were 74 almshouses in Kansas with 735 inmates at the same time that Nebraska had only 51 almshouses with 551 inmates. It appears, also, that the Kansas almshouses harbored 461 native-born whites as against Nebraska's 263. Indeed, there is quite a company of states that have a lower percentage of paupers than Kansas.

Yet the statement has been made repeatedly —printed persistently in reputable publications even after these government figures were made public—that pauperism in Kansas had practically disappeared. Upon just what ground this assertion is made does not appear, but certainly it was not based upon the only comprehensive and reliable statistics available—namely, those of the United States Government and the official state reports of Kansas itself.

However, the amount of absolute pauperism is not the only indication of a community's prosperity or thriftlessness. The records of the institutions at the other end of the economic ladder—that is, the banks—offer evidence that is illuminative.

The report of the United States Commissioner of Internal Revenue for 1913, for example, shows that, whereas in the country as a whole there is one person in every nine with a savings account, in Kansas only 1 in 87 had such an account. Furthermore, in the entire country the average savings account per depositor is $439.07, while in Kansas the amount per person is $231.69. Wherefore it appears that the campaign orators

were simply using a figure of speech when they asserted that Kansas had "closed the poorhouses and opened banks." There seems to be no justification for these oratorical figures on the basis of actual ones.

One need not, of course, judge a community's thrift entirely by its bank patronage, even though the commercial world insists upon doing so. Rural dwellers everywhere are alleged to have a penchant for old teapots and discarded stockings as hoarding-places. And possibly rural Kansans are peculiarly afflicted with this obsession. But it is hardly to be supposed that even persons with a very exaggerated form of this aberration would allow mortgages to accumulate on their property rather than deplete their stocking hoards. It is significant, therefore, to find it set forth in the government reports that 44.8 per cent. of all farms in Kansas were under mortgage at the same time that some of the adjoining states show a much lower percentage of mortgaged farms. In Nebraska, for example, the number of farms so cumbered was only 39.4 per cent.

"Possibly it is not without significance," comments one observer, "that the thirteen

counties of Kansas that lie contiguously along the Nebraska line show a net loss in population of 6,031 during the census period, whereas the corresponding thirteen counties of Nebraska that lie contiguously along the Kansas line show a net gain of 5,063."

It appears, therefore, that if the advocates of Kansas' form of liquor legislation are justified in offering Kansas as a model for emulation because the people of this state are exceptionally honest, prosperous,* and

* As regards Kansas' alleged prosperity, the message of Governor Capper to the Kansas Legislature on February 23, 1915, is illuminating. The following quotations taken from this message offer official confirmation of some of the conditions indicated by the report of the census bureau:

"In Kansas, we are facing an absolute necessity for stringent economy. In providing for the needs for the various state institutions it is a case of doing the best we can at a time of world-wide uncertainty and depression at a time when prudence and common sense counsel the utmost moderation, if not the most painstaking retrenchment.

"The appropriations asked for by those intrusted with the conduct of these institutions are asked for in good faith. In most cases they could be used to advantage. But we must not forget that the assessed valuation of property in Kansas was decreased by $5,000,000 last year, nor that the loss of revenue by the repeal of the inheritance tax law and other measures will amount to several thousand dollars. The chairman of the State Tax Commission has warned us that unless this Legislature decreases appro-

enlightened, the opposing partisans could, on somewhat better ground, extol Nebraska's form of legislation because the people of Nebraska are more honest, more prosperous, and more enlightened.

Not only so, but the Nebraskan may claim, and prove his contention by government statistics, that his people are more sane than their Kansas neighbors; that even in the number of cases of insanity which are the direct result of vice and dissipation, Nebraska's record completely eclipses that of

priations by at least a half-million dollars the State Tax levy must be increased for the first time in four years.

"The increase under consideration by the Legislature of 1915, and already approved by the Senate, will bring this session's appropriation up to the astonishing sum of approximately $10,445,000—not only the greatest appropriation ever made by any Kansas Legislature, but the greatest increase ever made by any Legislature in the history of the state.

"Kansas bootleggers are going to have rougher sledding than ever before. Their Uncle Sam is going to take up a little matter with them concerning their neglect to purchase licenses. As long as Uncle Sam gets revenue out of the whisky business he believes that he should have all that is due him. Therefore, Fred Robertson, district attorney for U. S., is looking up the records of nearly a hundred bootleggers in eastern Kansas. Most of them are selling liquor without a Government license. The penalty for such an offence is two years in the Federal penitentiary at Leavenworth, and a large fine if the judge so desires."

Kansas. Thus Census Bulletin 119, which deals with the insane in the various states, shows that Kansas has 172.2 insane persons in her institutions per 100,000 inhabitants, while Nebraska had only 167.0 at the close of the census period.

"It may be added," says Dr. Henry Smith Williams, "that this same government bulletin shows that if 10 states surrounding Kansas had as high a percentage of lunatics as Kansas they would have almost 5,000 more insane than at present. Moreover, if we exclude the thickly populated Atlantic seaboard states (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania) at the east, and the unique Pacific group (Washington, Oregon, and California) on the west, we find that, compared with the total population of the 40 remaining states, Kansas does not make even an average showing.

"Specifically, the population of these 40 states (including all the territory of the United States within many hundred miles of Kansas) in 1910 was 61,749,339; their insane population was 105,510—a ratio, therefore, of 170.9 per 100,000 of population as against

172.2 of Kansas. Thus it appears that after thirty years of prohibition Kansas had a heavier incubus of insanity than the great bulk of the population at large from the south Atlantic seaboard to the Sierra Nevadas and from Canada to Mexico."

Whether we make the comparison between Kansas and 40 other states or merely 10 surrounding states, or with the adjacent and closely similar single state, Nebraska, Kansas' insanity record appears in an unfavorable light. Yet insanity, perhaps more than any other type of disease, is directly influenced by the abuse of alcohol.

Moreover, the same government statistics show that Kansas decreased 10 insane persons for each 100,000 inhabitants during the census period, while Nebraska decreased 28 for each 100,000. And a comparison of the official reports of the two states for 1912 shows that there were more cases of a specific form of lunacy that is caused by drinking spirituous liquors (alcoholic insanity) in the Kansas institutions than in those of Nebraska. In exact figures, Kansas had 5 per cent. of these cases, while Nebraska had only a trifle over 4 per cent.

Kansas. Thus Census Bulletin 119, which deals with the insane in the various states, shows that Kansas has 172.2 insane persons in her institutions per 100,000 inhabitants, while Nebraska had only 167.0 at the close of the census period.

"It may be added," says Dr. Henry Smith Williams, "that this same government bulletin shows that if 10 states surrounding Kansas had as high a percentage of lunatics as Kansas they would have almost 5,000 more insane than at present. Moreover, if we exclude the thickly populated Atlantic seaboard states (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania) at the east, and the unique Pacific group (Washington, Oregon, and California) on the west, we find that, compared with the total population of the 40 remaining states, Kansas does not make even an average showing.

"Specifically, the population of these 40 states (including all the territory of th United States within many hundred mil Kansas) in 1910 was 61,749,339; thei population was 105,510—a ratio of 170.9 per 100,000 of p ulat

more than thirty years. Probably no community of corresponding size has ever made such a serious attempt or sustained their efforts for so long a period. The fact that the net results of this earnest effort for the space of a generation—the fact that Kansas' record of conditions that are directly and indirectly produced by alcoholism is worse than that of her immediate neighbor where a more tolerant form of legislation has prevailed—is not a reflection on the community, but upon the form of legislation attempted.

CHAPTER V

THE PROBLEM OF LEGISLATION

WE have seen in the preceding pages a variety of evidence indicating that neither state-wide prohibition nor local option is effective in reducing the consumption of alcohol. The full quota of drunkards in prohibition cities is very positive evidence, but the prevalence of conditions attendant upon alcoholic abuses is also the strongest kind of corroborative evidence. Moreover, it is quite impossible to explain the steadily increasing per capita consumption of alcohol on any other reasonable assumption.

We are justified in believing, therefore, that prohibition does not prevent the consumption of liquor. Furthermore, there is an abundance of equally convincing evidence indicating that prohibitive legislation induces the consumption of the most harmful form

of liquors. The marked increase in the consumption of the distilled liquors in the country as a whole, concomitant with the increase of prohibition, suggests this; but there is evidence of a more specific character to support this general proposition.

It must be borne in mind that prohibitive laws aim merely to control the method of barter, not the purchase or consumption of liquor. They obtrude obstacles to traffic, but not actual obstructions, thus clogging the highways without closing them completely.

The natural result of difficult highways and long hauls is a reduction in bulk of commodities carried. Alcoholic beverages lend themselves peculiarly to condensation, and, unfortunately, their harmful qualities are directly proportionate to this condensation. It is simply the natural sequence of cause and effect, therefore, that distilled liquors form the great bulk of liquor traffic in prohibition territories.

Whether we consider restricted regions or vast areas of prohibition territories, the evidence of the consumption of condensed spirits is unequivocal. Thus, a recent report of the Southern Express Company to the

Interstate Commerce Commission, upon the shipment of liquors, shows that more than 20,000,000 gallons were carried by express in a single year to consumers alone, not to dealers, and "mostly in prohibition territory." Just how the dealers received their supply, or just what the supply was, does not appear; but since there were more than 6,000 dealers who held government licenses in the five southern prohibition states it is reasonable to suppose that their supply was considerable.

Moreover, these figures take no account of the deadly products of illicit stills which the government asserts spring up and flourish in the wake of prohibition. And there is no way of determining the number of such stills accurately, as most of them, of course, are never detected. But since the government reports that more than 2,000 illicit stills were seized in 1911 in Alabama, Georgia, Tennessee, and Oklahoma alone, and when we reflect that all these illicit stills are operated for the sale of liquor, not merely for individual consumption, it is not difficult to understand why there are evidences of liquor traffic in these nominally "dry" places.

Twenty million gallons distributed among private individuals, plus the quantity distributed by six thousand licensed dealers, plus the product of two thousand detected stills * and the vastly greater number of undetected ones—this combination will account for an amount of liquor that is quite up to the standard of "wet" communities.

The consumption of alcohol in the prohibition states of the South appears to be duplicated in other states having similar legislation. In Maine, for example, there were nearly fourteen hundred federal liquor licenses issued last year, or about one liquor

* During the fiscal year ended June 30th, 1913, there were seized and destroyed 2,375 illicit distilleries as against 2,466 during the preceding year.

"Bootlegging," says the report of the Commissioner of Internal Revenue for that year, "is principally carried on in states operating under the local prohibition laws and appears to be one of the hard propositions for Internal Revenue Officers. The bootlegger is at no time stationary, but moves from place to place, offering and selling his illicit wares. It is impossible, owing to the limited number of Revenue Officers in the field, to break up this practice, and without the hearty co-operation of the local and state authorities it is believed that the conditions will grow no better."

In the fiscal year ended June 30th, 1914, there were 2,677 illicit distilleries seized, of which 802 were in Georgia, 535 in North Carolina, 249 in Tennessee, etc.

dealer for each one hundred families in the state.

Kansas, the pride of every ardent prohibition enthusiast, presents evidence of intemperance as referred to in a preceding chapter. But the Mahin law of Kansas makes it possible to secure direct evidence as to actual amounts of liquor purchased through legitimate channels. This law requires that railroads and express companies must file reports of all intoxicants carried with the county clerk of the county in which liquor is received.

The record of the city of Topeka for one month, as recorded by the county clerk, is illustrative. Assuming as correct the Kansans' own assertion that Topeka is the most temperate of any of the large places in the state (as indeed it appears to be) it is interesting to note the records of liquor receipts for a single month in this city. Thus the files in the office of the county clerk of the county in which Topeka is located show that in the month of September, 1913, the shipment of liquor officially recorded amounted to 95,561 quarts, "of which 90,062 quarts were received in Topeka, a city of 45,000

inhabitants—just half a gallon for each man, woman, and child."

These figures, although furnished by an ex-official whose integrity is not open to question, aroused a storm of indignant denials as to their accuracy by persons who had never examined the records. Yet when the matter was referred to the clerk for refutation he merely made an evasive statement and did not—apparently could not—deny the records in his own office. Moreover, when it was asserted a year later that this particular month of September, 1913, did not equal the record of liquor sales of the corresponding month in 1914 the reply from the clerk's office was simply that "the records were no longer open to inspection."

Considering the widely promulgated statement of the controlling political party at that time, that Topeka was practically "dry," can any intelligent person pretend to doubt the reason for this secrecy?

Possibly the fact that the police records of Topeka, which *are* open to inspection, showed that the number of arrests for drunkenness had risen from 530 the year before to 725 in the year when the clerk's books were open

to inspection may have influenced the action of that official.

Yet in the face of these records of purchases and consumption a high official of Kansas sent broadcast the statement: "I have been around the hotels and all different places of business and parts of the town (Topeka), and for the last five or six years have not heard of a place where you could go in and buy any kind of liquor." To which a wag, somewhat more familiar with the records of the clerk's office and the police department, replied that, "there must be places where you can go in and buy it, or else where you can buy it without going in."

Yet in all probability the statement of this peculiarly obtuse official was made in perfectly good faith. Such is the blindness of fanaticism!

However, there are many persons in Kansas and in other places where prohibitive laws exist who are fully aware that these laws do not diminish the consumption of alcohol, yet who prefer secret drinking and unlawful drinking-places to the open saloon. They believe that the absence of places where liquor is sold openly protects adolescents

against the temptations of youth. If this is true—if prohibition offers even a slightly greater protection to young men than more tolerant forms of legislation—this fact would more than offset all the other shortcomings. For the youth who is guided safely through the formative period of adolescence without acquiring a taste for liquor is not likely to succumb later.

But Kansas' record of conditions which are largely responsible for youthful delinquency does not offer convincing evidence that this protection is afforded. Kansas not only has more juvenile delinquents in her reformatories than her immediate neighbor, Nebraska (434 to 133, according to the census report), but more proportionately than such western rural states as Iowa, Minnesota, North and South Dakota, Oklahoma, and Texas. And it does not appear from the records of the other states in which prohibitive laws have been tried for a sufficient length of time to afford admissible evidence that any real protection is given adolescents by this form of legislation. In short, it is not the particular method of distributing liquor that is important, but the amount and kind of liquor distributed.

Direct evidence of this is shown by the results of the form of legislation which restricts the sale of liquors to fixed quantities in "original packages," thus doing away with the open barroom. Various states have tried this expedient for getting rid of the saloon, but with one exception (South Carolina) have now abandoned it as unsuccessful. This type of legislation is probably less conducive to illicit liquor traffic than actual prohibition, but it does not lessen the abuse of liquor, and tends to increase the consumption of the distilled liquors.

A well-known advocate of temperance said recently: "Apparently the only reason why prohibitive legislation flourishes today is because prohibition does not prohibit." And the idea conveyed in this sentence has been expressed still more recently by Mr. John Koren, secretary of the American section of the International Committee for the scientific study of the alcohol question.

"In the United States," says Mr. Koren in the *National Municipal Review*, "those who would be the exclusive leaders in temperance work seem to have passed beyond the study stage. . . . In plain truth, the

direction of the anti-alcohol movement appears to have fallen largely into the hands of a professional group of advocates who cannot afford to abide by an appeal to reason. This unsugared statement does not carry with it any disparagement of the thousands who follow them from convictions and unmixed motives, much less a denial of the undoubted benefits from the temperance movement in its purer forms which has been indispensable to progress."

From another source, this time a clergyman, comes an expression of the same idea: "The next step in the 'temperance question' is for all of us to stop and begin to think honestly, truthfully, and considerately," this minister suggests. "When we do, then we shall begin to devise some wise ways of promoting temperance."

The thinly veiled implication in all these statements is that the prohibition movement has become something more than a moral issue concerned only with the suppression of alcoholic abuses. Probably the bald statement that it has become a powerful political factor is a sufficiently comprehensive characterization, not requiring elucidation or comment.

NATIONAL PROHIBITION

It is a Utopian dream of certain reformers, and of many people sincerely interested in the cause of temperance, that alcoholism may be abolished by national prohibition. Even some of those who appreciate fully that as a state-wide measure this kind of legislation does not work effectively seem to feel that in some occult manner a federal law will succeed where a state statute fails. To them, apparently, the mandate of Washington is something quite different from the mandate of a state capital.

But when we consider that the enforcement of federal laws is just as dependent upon the support of the majority, not only as reckoned by votes, but by actual sentiment of the voters, as are state laws, there is no reason to suppose that prohibitive laws made in Washington will be any more effective than laws made in Topeka, Atlanta, or Augusta. Judged by the annual consumption of alcohol in this country, which, as we have seen, is not particularly selective in its regional distribution, it may well be doubted whether there

is or has been at any time a state in the Union in which the majority of voters believed in prohibition as applied to themselves. The most drastic prohibitory laws do not prevent the individual obtaining liquor through perfectly legitimate channels. Even the radical prohibitionists have found it expedient to make provision for the individual consumer. And it is evident that a federal law which did not make some similar provision could not be enforced even if it could be enacted.

Viewed from another angle, is it reasonable to expect that this country, in which the consumption of alcohol last year amounted to about 115 gallons of liquor per voter, will suddenly submit to enforced total abstinence? Granting that a small majority of these voters were willing to forego alcoholic beverages absolutely (although there is no evidence that such a majority exists), what possible chance is there that this small majority will be able to dictate to the minority in matters that are closely allied to primitive instincts?

It requires little imagination to conceive the difficulties of enforcing any law which is only approved by a doubtful majority.

Geographical conditions alone obtrude insurmountable obstacles. This country is fringed with thousands of miles of open coastline, thousands of miles of still more open land boundaries protected merely by an imaginary line. Simply to patrol these boundaries would require an army of men larger than our present standing army, quite as large as the prospective army dreamed of by ardent militarists.

Even if this thin margin could be guarded successfully against importations there would still remain the problem presented by the millions of square miles of internal territory to be guarded against unlawful manufacture. The fact that thousands of illicit stills are detected annually even at present, and that thousands operate undetected, is an earnest of what we might expect the number to be when the incentive for manufacture was so much greater.

Moreover, there is no law even seriously contemplated that aims to prevent the manufacture of alcohol for personal consumption. And, unfortunately, the process of manufacturing the most pernicious forms of intoxicant—the home-made distilled fusel-oil

concoctions—is one of the simplest of mechanical processes. A kitchen stove, a tin tube, a bucket of water, and an old teakettle stuffed with any fermented fruit, grain, or vegetable, constitute a complete equipment, save only the can at the end of the tube for catching the concentrated poison.

Should any one doubt that such deadly mechanisms will be requisitioned if other means of obtaining alcohol fail let him refer to the record made by Sweden a few years ago, when the household manufacture of alcohol was permitted. It is officially recorded that the amount of drunkenness that followed is almost unparalleled—"the like of which history scarcely records," as one chronicler has said.

"National prohibition is a dangerous proposition," asserts former-President Taft, in considering the question from a legal and political standpoint. "It would revolutionize the national government. It would put on the shoulders of the government the duty of sweeping the door-steps of every home in the land. If national legislation is passed local government would be destroyed. And if you destroy local government you destroy

one of the things that go to make a healthy condition of the national government.

"National prohibition is non-enforcing; it is a confession on the part of state governments of inability to control and regulate their own especial business and duty; if the matter were placed under Federal control it would result in creation of a machinery of government large enough to nominate any President, and would offer too great an opportunity to persons seeking to perpetuate their powers in Washington."

Such a bill as that proposed by Congressman Hobson in the last session of Congress, for example, which aims at nation-wide prohibition of the liquor traffic without affecting the right of individuals to manufacture alcoholic beverages seems ill advised. Either the promoter is not familiar with the actual status of liquor consumption in existing prohibition territories, or he does not grasp the significance of the world-wide use of alcohol throughout the ages and its resultant physiological effects, or he fails to understand human nature of the normal American type and the abnormal inebriate type.

Still, it must be remembered that the pro-

hibition movement is a powerful political factor at present. And it is not to be supposed that the inaugurators of national prohibition movements are wholly oblivious to the possible advantages of being aboard this popular political excursion should it, by some chance, reach its destination.

Commenting upon this particular form of legislative measure, the *Courant*, of Hartford, Conn., of December 23d and 24th, 1914, made these pertinent statements:

"Is it not militarism in the real sense that Mr. Hobson and his prohibition friends are now trying to set up in this country by their proposed amendments of the Constitution of the United States? Their notion is that they have a majority of the people of this country on their side; and granting this assumption for the sake of argument, although we seriously doubt that it is a fact, they propose to compel all who differ with them to do exactly as they decree.

"The only method by which you can advance a community, a state, or a nation in stable morality is by taking them man by man and making the individual better. This is a slow process—too slow for the

prohibitionists. To wait for this natural process to work itself out puts them in a frenzy, and so they turn to the compulsion of law—a kind of compulsion which differs only in form from the compulsion of the bayonet, although in orderly lands, like ours, the bayonet is not seen. The fact that the compulsion of law is unable to make anybody good, that when it runs counter to personal rights which our people firmly believe they possess, and which the mass of them actually exercise, it turns communities of law-abiding people into communities of law-breaking people, and, therefore, this compulsion does not bring the millennium any nearer, but really shoves the millennium farther into the future—all this the prohibitionist overlooks or obstinately disregards."

A LESSON FROM SCANDINAVIA

Our attitude towards the alcohol problem may be characterized as typically American. In effect, the movement to abolish alcoholism by quick legislation is an attempt to change a primitive instinct that is as old as civilization itself. But our record shows that thus

far such methods have not been successful, and indicate that this great problem of sociology and economics can only be solved by the distressingly slow evolutionary method. Certain European countries have been brought to a realization of this through a series of legislative experiments. Norway and Sweden, for example, have tested many forms of liquor legislation, seeking better conditions as eagerly as we have sought them.

Meanwhile, however, they have carefully scrutinized the effects of various legislative acts through the eyes of impartial investigators somewhat less astigmatic than our own. As a result, some recent legislative measures adopted in Norway and Sweden for the express purpose of reducing the consumption of alcohol, are worthy of thoughtful consideration.

The Norwegian law, which went into effect on January 1st, 1913, is intended primarily to discourage the sale and consumption of all liquors, but particularly the use of distilled spirits—that is, liquors having a high alcoholic content. It contemplates the final abolition of ardent spirits as beverages by a prohibitory tax, or government monopoly,

at the same time it encourages the manufacture and consumption of the lighter beverages, giving especial encouragement to the use and production of beverages of the lowest possible alcoholic content by making the tax upon such beverages merely nominal. Thus the Norwegian law, like the Swedish law which is now in operation, aims its first blow in the cause of temperance at the distilled liquors which are recognized as distinctly more harmful to the individual and to the race than beverages of lower alcoholic content.

It will be seen that this law is, in effect, an educational measure. It makes no attempt to change suddenly a human instinct that is the heritage of thousands of generations. Yet it is just as surely a death thrust at alcoholism as the more radical forms of legislation. While nominally it simply encourages the temperate man to remain temperate, it really aims to eliminate the squint-brained member of society exemplified in the drunkard.

The importance of this pathological member of society in the problem of liquor control—or, more accurately, an appreciation

that inebriety *is* a pathological condition—seems to have been largely overlooked in practical legislation. Our present method of imprisoning the drunkard periodically, and liberating him to return to his drunkenness, is scarcely more consistent or effective than imprisoning the individual suffering from any form of mental defect, or aberration. Inebriety is a definite symptom of a constitutional defect which requires medical treatment rather than punishment. In some cases the treatment will be effective; in others it will not. But in any event, proper remedies should be tried. If these fail, the incurable individuals should be given the same custodial care given the lunatic, or any other asocial and dangerous member of society.

There seem to be no insurmountable obstacles to according the inebriate some kind of curative, or custodial, treatment. Indeed, there are several states at the present time in which such legislation is being tried, quite independently of any liquor legislation. This is a step forward in the cause of temperance. And it would seem that if some of the energy expended in attempting to keep liquor away from the drunkard were directed

to keeping the drunkard away from liquor we should make somewhat better progress.

The legal attitude that should govern such cases has been tersely expressed in a recent publication. "All questions of punishment should be eliminated from the judicial mind; but the absolute necessity of segregating the inebriate for a long period should be fully recognized and no mawkish sentimentality should be permitted to interfere with its rational carrying out."

A second great factor for consideration in the problem of liquor legislation is the adolescent. As has been pointed out, it is almost axiomatic that if the adolescent is shielded from alcohol until his majority, the danger of acquiring a taste for liquor is minimized. A nervous system which has not been injured by alcohol during adolescence acquires a relatively high immunity to liquor when fully developed in the adult.

The importance of protecting the nervous system during its formative period is fully appreciated by every temperance worker, whatever his particular legislative bias. But the interdiction of liquor by legislation does not appear to produce satisfactory results.

In the last analysis the remedy must be the development of self-control and self-reliance in the individual. The rational kind of education in matters pertaining to the effects of alcohol—that is, plain statements of facts, without the grotesque exaggerations which even a very stupid boy will detect, and that are likely to arouse the antagonism of the intelligent boy—this sort of instruction will accomplish more in the cause of temperance than flaming posters, or attempts to prevent contact with alcohol by direct legislation.

WHAT ABOUT THE SALOON?

We have seen abundant evidence tending to show that the legal abolition of the saloon fails to reduce the consumption of liquor; that the absence of the saloon does not reduce the amount of crime, insanity, and pauperism; that there is no demonstrable increase in prosperity. We do find, however, that illicit manufacture flourishes in prohibition territories; that strong liquor of the bad quality is dispensed surreptitiously; and that drug-taking supplements the use of the bad liquor.

If we examine the records of the communities where liquor is sold legally and openly, but where there are no legal saloons—that is, the communities where the final distribution of liquor is made in "original packages"—we find the same evidences that conditions dependent upon temperance do not improve. In short, that none of the usual substitutes for the saloon, whether they be illegal "blind pigs" or legitimate "dispensaries," show any particular advantage to the community over licensed places of sale.

This does not mean that the saloon as it exists today is an ideal, or even a desirable, institution. In its present form it is a disfiguring makeshift. But it must be recognized that the saloon does not retain its popularity simply because it represents the final distribution-point of alcoholic beverages. And we must bear in mind that the use of alcohol among normal people is largely a social habit, and that the saloon therefore represents a social center. If, then, we are to oust the saloon, we must offer some substitute as a social center, a kind of substitute that will attract those among the erstwhile saloon patrons, the object of whose patronage

is not solely the purchase of intoxicants. In short, this substitute must take into full account the class of men who seek the saloon "because there isn't much of any other place to go."

Obviously the substitute must not depart too radically in its essential features from the present type if it is to attract patronage. The immediate object of the change would be a reduction in the sales of beverages of high alcoholic content; but absolute interdiction of such sales would probably not be advisable at first, at least in certain localities. Undoubtedly some modification of the Scandinavian method, however, whereby the same object is accomplished by a tax on distilled spirits sufficiently high to discourage the sale as well as the consumption of such liquors would be a step in the right direction.

The sale of any form of intoxicants, either to drunkards or minors, should be punished with sufficient severity to insure the law's enforcement. Probably the absolute revoking of the license of any person committing this offense would be sufficiently effective, considering the monetary loss incurred by the offender.

Certain continental observers have pointed out that our method of dispensing beverages over a high bar conduces to increased drinking. And undoubtedly the American bar suggests hasty drinking with frequent repetitions. The man who "takes his drinks perpendicularly" is more likely to be a whisky-drinker than the one who consumes his beverage in a more restful attitude. The American type of bar is not a necessary accessory to the "poor man's club"; and I believe the legal abolition of this peculiarly pernicious article of furniture would be a distinct step forward in the cause of temperance.

The "barless bar-room" would be something of a novelty in this country, but not wholly so. The liquor-serving restaurant is one in effect, and is a decided improvement upon the other form. Indeed, the modified restaurant of the continental type might advantageously be introduced in our communities as a step toward eliminating the saloon.

It would, of course, be merely a tentative step in one direction. Probably a more important one would be the establishment of

counter-attractions to the saloon in its present form, or the substitute suggested. The exact character of such counter-attractions has been outlined by Dr. Henry Smith Williams recently: "Provide a substitute club that can more than compete with the saloon. It is at least an open question whether it will not be necessary to serve malted beverages along with soft drinks in the refreshment department of the entertainment halls. If this is done, of course any profit accruing should be used for the betterment of the amusement hall itself.

"Perhaps the most important single department of the working-man's club that would be thus provided as a substitute for the saloon would be the gymnasium. The educative value of a properly equipped gymnasium cannot well be overestimated. Vigorous physical exercise—competitive exercise in particular—affords most wholesome outlet for the pent-up energies of youth. Even a modest gymnasium may afford ample facilities for boxing, wrestling, hand-ball, fencing, vaulting, to say nothing of the non-competitive exercises. The participant in these sports has the opportunity to learn

from observation that the men of greatest athletic prowess hold their titles to supremacy contingent upon abstinence from intoxicants."

If, by some such methods as just outlined, we can eliminate inebriety, protect adolescence, and attract men away from the saloon, we shall be making progress. For, even if we only succeed in holding the consumption of liquor to its present limits, we shall accomplish far more than has been accomplished in the past quarter of a century.

APPENDIX

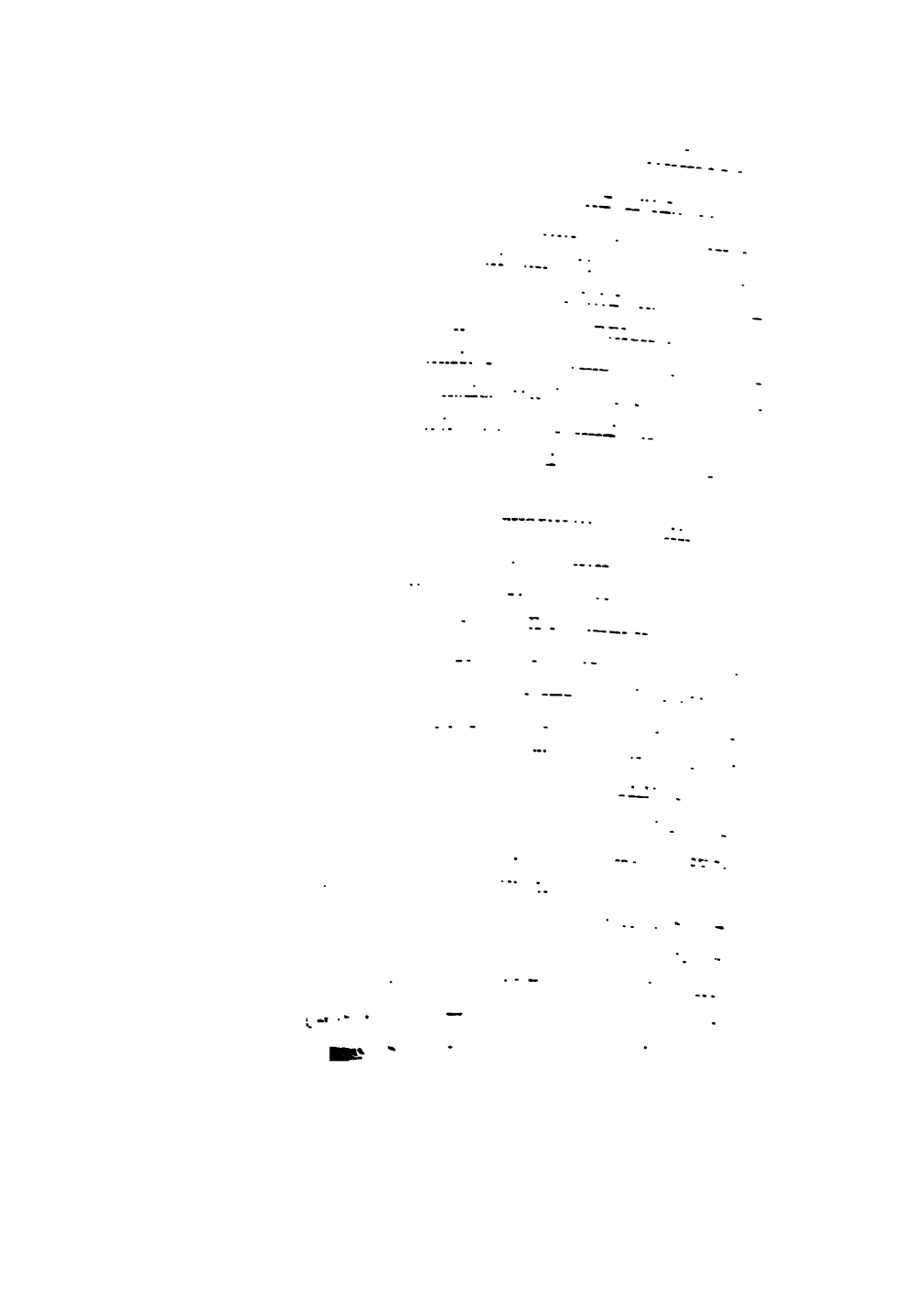
I

NOSTRUMS, ALCOHOL, AND INDUSTRIAL ACCIDENTS

WE have seen in an earlier chapter, that although the government has imposed rigid restraint upon physicians, druggists, and manufacturers in dispensing habit-forming drugs, with strange inconsistency it still permits the sale of such drugs when incorporated in so-called "patent" or "proprietary" medicines.

Similarly, the government and state laws permit the sale of nostrums containing a high percentage of alcohol in all communities, regardless of prohibitive liquor legislation.

It has been pointed out repeatedly that many of these nostrums contain not only a higher percentage of alcohol than the concentrated alcoholic beverages, but many of



tonics, stomach bitters, rheumatic cures, nerve restoratives, kidney cures, cordials, dyspepsia cures, and different extracts, contain variously from 30 to 90 per cent. of alcohol.

"The United States Internal Revenue Department specifically describes this list of 287 concoctions as alcoholic medicinal preparations which have been examined by this office and held to be insufficiently medicated to render them unfit for use as a beverage. The average proprietary medicines which may have some genuine medicinal value contain about 10 to possibly 30 per cent. of alcohol. Certain of the preparations in this list of 287 may have a medicinal value, but, nevertheless, all contain such varying amounts of alcohol that the United States Internal Revenue Department imposes a special tax upon all of them as alcoholic medicinal preparations even though the sales are for medicinal use.

"MADE IN PROHIBITION STATES

"The 287 alcoholic medicinal preparations are respectively manufactured in very nu-

merous cities throughout the United States, in prohibition as well as non-prohibition states.

"Brown's 'Vin Nerva Tonic' and Dr. Brown's 'Tonic Bitters' are made by the Brown Chemical Company at Nashville in the prohibition state of Tennessee.

"Dozier's 'Apple Bitters,' 'Laxa Bark Tonic' and Jones' 'Stomach Bitters' are made in the prohibition state of Mississippi, the first named at Hattiesburg, and the others at Natchez. 'Gentian Bitters' is made by the Evans Smith Drug Company at Kansas City, Kansas, another prohibition state. Two concoctions on the list are made in the prohibition state of North Carolina—Green's 'Chill Tonic,' at Selma, and Riley's 'Kidney Cure,' at Hayne. 'Indian Stomach Bitters' are made at Hanna, in the prohibition state of Oklahoma. 'McCorrison's Compound of Golden Seal' (what a sonorous name) is made at Union, in the prohibition state of Maine.

"Some examples of the high percentages of alcohol in the preparations given on this list will show why the U. S. Internal Revenue Department has branded them as alcoholic patent medicines.

"'Vin Mariani' contains 17½ per cent. of alcohol; 'Ducro's Alimentary Elixir' has 23 per cent. of alcohol; 'Katarno' contains 31½ per cent. of alcohol; 'Perro-China Bissleri' reveals 33 per cent. of alcohol; 'Bismark Laxative Bitters,' 39 per cent. of alcohol; 'Duffy's Malt Whiskey' contains 44 per cent. of alcohol; 'Angustura Aromatic Tincture Bitters,' 46 per cent. of alcohol; 'Underberg's Bonnekamp Maag Bitters,' 50 per cent. alcohol.

"But there are other patent medicines not included in the foregoing list issued by the Internal Revenue Department which have considerable percentages of alcohol, and all of which are freely sold in 'dry territory.' Some of them, as registered in the Department of Agriculture under act of Congress requiring their alcoholic contents to be stated, are:

"'Buchu Juniper Compound,' 16 per cent. of alcohol; 'Electric Brand Bitters,' 18 per cent.; 'Peruna,' 18 per cent.; 'Lydia Pinkham's Vegetable Compound,' 18 per cent.; 'Rexall's Rhuematic Remedy,' 18 per cent.; 'Wine of Cardui,' 20 per cent.; 'Paine's Celery Compound,' 20 per cent.; 'Hankin's

Remedy,' 22 per cent.; 'Hall's Great Discovery,' 43 per cent.: 'Hamlin's Wizard Oil,' 65 per cent.

"To what a vast extent patent medicines are used may be judged from the following account of an investigation published in a recent number (1915) of the *Journal of Outdoor Life*, the organ of the National Anti-Tuberculosis Association:

"GUILTY OR NOT GUILTY?

"In other words, 'Do you use patent medicine or not?' That was the question put up fairly and squarely to 963 householders in one of the most progressive counties in the state of North Carolina. Of this number, 518, or 54 per cent., plead guilty. The other 445, or 46 per cent., denied the charge. Now whether or not some of the 445 don't occasionally take a nip of some Peruna, 'blood purifiers,' or 'cures' we are not prepared to say. We feel reasonably sure, however, that the 518 that plead guilty were telling the truth. What a rich field, what a bonanza for the patent-medicine fakirs! And 'what fools we mortals be!' says the North Carolina State Board of Health.

"But patent medicines are not the only concoctions imposing upon the unsophisticated or supplying an opportunity to the

initiated in 'dry territory' to get as much alcohol as they want at any time. There are a great variety of so-called digestives, cordials, or extracts containing proportions of alcohol. Recent bulletins of the Bureau of Chemistry, U. S. Department of Agriculture, give full details of the analysis of a large number of these preparations and the prosecutions following true adulteration and misbranding.

"ALCOHOL 'DIGESTIVES'

"The firm of G. Citro & Company, of Hoboken, New Jersey, manufactured a so-called stomachic digestive, also labeled 'Gran-Liquore Della Stella.' Analysis showed it to contain 31 per cent. of alcohol, but the label contained no statement of the quantity or proportion of the alcohol therein. On the ground that the liquor was labeled and branded to deceive and mislead the purchaser, as well as on other grounds of false representation, the surviving member of the firm, Joachim A. Castagna, was fined $25 in the U. S. District Court, in New Jersey, on March 17, 1914.

"Another so-called digestive reconstructive product made by the Nectar Company, of New York City, under the additional name of 'Felsina Bitters,' was found by analysis of the U. S. Bureau to contain 25.2 per cent. of alcohol. No statement appeared on the label of the contained quantity or proportion of the alcohol. The concoction wasn't marked imported from Italy, as the label represented; it was made in the United States. The company pleaded guilty and was fined $25.

"CONTENTS OF GINGER CORDIAL

" 'Ginger Cordial made from pure ginger root. Invaluable in cases of Gastric Cramps and Indigestion.' Thus read the assuring label of a liquid sold by the John Burke Importing Company, of New York City. Nothing was said on the label as to the amount of alcohol ingredient. The U. S. Bureau of Chemistry found that the stuff contained alcohol to the extent of 32.97 per cent. It also found that capsicum had been substituted in part for ginger. The company was fined $25.

"The Wm. A. Webster Company, phar-

maceutical manufacturers of Memphis, in the prohibition state of Tennessee, turned out a preparation labeled: 'Wine Cocoa Leaves. Dose 1 to 4 teaspoonfuls. Alcohol 25 per cent. [written in ink]. Guaranteed under pure foods and drugs acts of June 30, 1906,' etc. Analysis by the U. S. Bureau of Chemistry revealed 32.2 per cent. of alcohol. The company was fined $15 and costs.

"A NICE HABIT CURE

"The Dr. Winder Drug Company, of Chicago, made a morphine Habit Cure. The label admitted (in very small letters) that it contained 75 per cent. of alcohol, but, in fact, as the U. S. Bureau of Chemistry found, the product contained 85.5 per cent. of alcohol. For this and other misleading statements the company, on May 9, 1914, was fined $100 and costs in the U. S. District Court at Chicago.

"HEAVILY ALCOHOLIZED 'EXTRACTS'

"A 'Superfine Jamaica Ginger' shipped in the prohibition state of Tennessee by the

corporation of Victor Gautier & Co. of New York City, was found to contain 33.3 per cent. of alcohol, and was not Jamaica ginger, 'but was a diluted solution of ginger containing capsicum.' The court imposed a fine of $15. A 'Superfine Peppermint' shipped by the same firm showed, upon analysis, 31.16 per cent. of alcohol, and only a trace of peppermint-oil, the whole being artificially colored with a coal-tar dye. The company, on April 13, 1914, pleaded guilty, and was fined $15.

"The Royal Chemical Works, Chicago, turned out several of these products and thereby got into collision with the law. One product was a peppermint essence which analysis showed contained 52.96 per cent. of alcohol, and not more than .4 of one per centum of oil of peppermint. The stuff was artificially colored. One hundred dollars and costs was the fine in this case. A 'Ginger Extract' made by this company disclosed 47.7 per cent. of alcohol and was adulterated and misbranded; the fine in this case was also $100 and costs.

"A 'Peppermint Extract' sold by the Weidman Company of Cleveland, Ohio, re-

vealed upon analysis by the U. S. Bureau of Chemistry, 60.40 per cent. of alcohol. This preparation was, in reality, 'diluted alcohol, artificially colored with caramel, and contained only .8 per cent. of the peppermint-oil.' The company pleaded guilty and was fined $25 and costs."

These examples of fraud, taken from the government's long list, illustrate the character of the nostrums that may be purchased everywhere in the United States. Let us consider briefly another class of nostrums—those containing habit-forming drugs—which are manufactured and sold with full government approval and protection.

II

THE HARRISON NARCOTIC LAW

SOME of the difficulties that are encountered in attempting to effect reforms by sweeping legislation are illustrated by the workings of the Harrison Narcotic Law, which went into effect early in 1915. This law imposes all manner of restrictions upon physicians, druggists, and manufacturers of narcotic drugs, and apparently there was no loophole by which the "dope"-taker could obtain his drug through legitimate channels.

But evidently there is such a loophole and one of sufficiently large caliber for all practical purposes. And this loophole was made by the ubiquitous, but highly influential, patent-medicine man, as is set forth in the following editorial comment of the *Journal of the American Medical Association* for June 19th, 1915:

"Treasury decision 2213, issued June 7th, 1915, by the commissioner of internal revenue, establishes a new ruling on Section 6 of the Harrison Narcotic Law, the section exempting certain proprietary preparations from the operations of the law. The section provides that preparations and remedies which do not contain more than two grains of opium or more than one-fourth grain of morphine or more than one-eighth grain of heroin or more than one-eighth grain of codein, etc., shall be exempt from the provisions of the act. The decision discusses the question as to whether or not 'prescriptions' come within the definition of 'preparations' or 'remedies' as given in the act. The commissioner says:

"'The word "preparation" as generally used and understood means ready-made or prepared medicines, and the word "remedies" means that which cures or is efficacious in a specific disease or diseases under all conditions, while the term "prescription" is the written direction or recipe of a physician for the compounding, or preparing, of a medicine and directions for its use to meet the existing conditions in the case of a particular patient.'

"Under this interpretation the commissioner holds that the exemptions in Section 6 do not apply to prescriptions written by registered physicians unless such a prescription is written for a preparation or remedy prepared in accordance with the U. S. Pharmacopeia, National Formulary or other formula, or for a 'remedy or preparation' prepared under private or proprietary formula, carried in stock by a dealer, which may be dispensed without a 'prescription.' Accordingly, the commissioner directs that every prescription containing a narcotic drug in any quantity, unless it is for a preparation prepared in accordance with the U. S. P. or National Formulary, must have indicated on the prescription the name and address of the patient, the date, the name and address of the physician and his registry number. Such prescriptions cannot be refilled, and must be kept on file by the druggist filling them for a period of two years.

"This ruling draws exactly the same line in medicinal preparations that exists between ready-made clothing and clothes made to order. A preparation which is put up in accordance with a distinct formula and which

is recognized as a definite preparation is exempt, provided it contains less than the minimum quantity of drugs. A physician's prescription, being written to order for an individual patient for a specific purpose, is not exempt, no matter how small an amount of the prescribed drugs it may contain. The practical effect of this decision is, that under it physicians must include in all prescriptions containing any opium or cocaine or any of their derivatives the name and address of the patient, the date, and the name, address, and registry number of the physician.

"At first glance this decision will doubtless impress physicians as being a discrimination against them and in favor of proprietary preparations. This is true, but it is because the law, as it passed Congress, discriminated against physicians and in favor of 'patent medicine.' Section 6 of the Harrison law represents the political influence of the 'patent medicine' manufacturer in Congress. It should never have been included in the law. Its insertion weakened the law and was due solely to the inability of the members of Congress to resist the pressure from 'patent medicine' interests. This section must be

repealed; so long as it stands, the Treasury Department has no choice but to enforce it. To use an exemption clause drafted at the dictation of the 'patent medicine' interests to exempt physicians' legitimate prescriptions would be an absurdity. There should be no exemption of any kind under this law. Every preparation of any kind containing any amount of opium or cocaine or any of their derivatives should be subject to the operation of the law. Physicians have never asked that their prescriptions be exempt. The demand for such exemption comes solely from the proprietary and 'patent medicine' interests; to satisfy these interests the special exemption was made."

III

INDUSTRIAL ACCIDENTS CAUSED BY ALCOHOL

THE question of the relationship between alcoholism and industrial accidents has aroused widespread interest recently. No one pretends to deny the notorious irresponsibility of the drunkard. And since the per capita consumption of alcohol and the number of industrial accidents in the United States have been steadily increasing in recent years, it is a natural assumption that one is dependent upon the other.

When we attempt to prove this assumption, however, we find that this apparently simple proposition is a most complicated one. And although exhaustive investigations are no way to determine just what the exact relationship is, there are as yet no exact data upon which to base an opinion.

A writer in the *American Federationist* for May, 1915, has presented some facts bearing

upon this subject which are peculiarly pertinent. Since the writer of this article has presented many important side-lights on the subject, I have taken the liberty of quoting that part of the article directly concerned with the available data.

"Let any corporation or partisan speaker or writer give out for public consumption the fiction that drink causes most of these casualties and it is published unquestioned, though an old fiction and one exploded by the facts it still does expressive duty.

"This was further illustrated recently when various railroad companies and different component companies of the United States Steel Corporation ostentatiously issued orders prohibiting employees from using intoxicants. To discourage intoxication is of itself a laudable undertaking, but the purport and effect of these orders were something quite different from a mere moral and unselfish aim. The manner in which these orders were issued was adroitly calculated to give out the impression that railroad and industrial accidents were caused by drunken employees, and that if employees would only cease getting intoxicated then there would be no such

shocking accidents. By implication the whole responsibility was thrown upon the workers. Many of the newspapers which conspicuously published articles dealing with these orders discreetly refrained from asking embarrassing questions. These would have shown that stock-jobbing mismanagement and managerial incapacity, perilous speed demanded of employees, inherent risks of trade, obsolete and dangerous equipment, defective roadway, the hiring of inexperienced men and other factors were the most vital causes, and that there was an evident campaign to conceal these by concentrating attention upon the element of liquor.

"These inexcusable distortions are seen in their fullest tragic light when we consider the huge sacrifice of human life in what are called industrial accidents. Mr. Frederick L. Hoffman, one of the foremost statisticians, estimated several years ago that the number of fatal accidents to adult workers in the United States was between 30,000 and 35,000 a year, that there was an annual total of 1,250,400 non-fatal accidents in the United States. In an address recently given before the National Association of Cotton Manu-

facturers, Mr. Carl M. Hansen, secretary of the Department of Accident Prevention, Workmen's Compensation service bureau, estimated that from 40,000 to 50,000 wage-workers were killed by accidents in industries in the United States yearly. The Massachusetts Industrial Accidents Board places the number of workers in the United States yearly killed by accident at 75,000 and the number annually injured at 3,000,000.

"If most of these casualties are the result of alcoholism, as certain special pleaders airily assert, then employers must necessarily plead guilty to the charge of employing and retaining great numbers of drunkards in their employ. This charge, however, the employers would be the very first to resent. But when we further reflect that great parts of the United States are under prohibitory laws and that among the casualties are those of large numbers of women, children, and youths, it is self-evident that there is, considering these facts alone, a colossal libel in attributing the bulk of industrial accidents as the result of drink.

"Speculation is unnecessary on these points or on any others regarding this question.

Official data conclusively show what approximate factors do cause these accidents, and of some of these findings we shall give a summary.

"A recent federal report dealing with the operation of the Federal Workmen's Compensation Act covering the government employees shows that of the total number of claims—2,499—allowed during the year, there were 406 disputed cases. Of these 406 cases, the charge of intoxication was raised in only one case, and that charge was dismissed.

"The New York State Workmen's Compensation Commission began operation on July 1st, 1914, under a law making intoxication a cause of exclusion of awards. Of 6,813 claims disposed of in six months the question of intoxication was raised by the employer or insurance carrier in only five or ten cases, and not a claim in even these cases was denied, clearly showing that even in the few cases in which it was charged that accidents resulted from intoxication the charges were not substantiated.

"The 1914 report of the Massachusetts Industrial Accidents Board shows (p. 10) that during the years 1912–1913 there were in

that state 84,694 non-fatal accidents, of which 72,862 were insured, and 474 fatal accidents, of which 290 were insured. Only 156 of these cases were contested by appeal to the Arbitration Committee or to the courts, and of these 156 cases there were only two cases of proved partial intoxication. The Massachusetts Industrial Board describes in this report how 'dusty' trades, industrial poisons, and occupational diseases are responsible for an annual loss in the United States of $50,000,000 through needless diseases and disablements, and Massachusetts has her proportion of this enormous waste. The great majority of wage-earners spend at least one-third of every twenty-four hours in the factory, mill, or shop. Conditions in many of them are such that the worker is unable to attain fullest efficiency by reason of the conditions which surround him, and this has a direct bearing upon the number of accidents or the quantity of the output of the worker.

"The Industrial Insurance Commission of the state of Washington states, in its 1913 report, that of 11,896 claims submitted during the year by injured workmen, only 23 appeals were taken to the courts, thus showing that

charges of wilful misconduct, including intoxication, were insignificant. Under the head of 'Personal Fault' the report states (p. 97) that: 'It appears that 69 per cent. of all cases (of accidents) were ascribed to risks of trade and not to personal fault. Only 11.2 per cent. of the injuries are here charged to personal fault.' In a previous report the Commission declared, 'the records of this Commission do not show many cases of intoxication.'

"The Industrial Commission of Wisconsin reports a total of 8,224 accidents reported during the year 1912–1913, of which number 4,526 cases were subject to compensation. Inasmuch as of 3,571 cases of accidents in establishments of private employers 2,781 were at once settled and compensation paid by those employers without an order of the Commission, this is the clearest possible proof that intoxication was entirely absent as a factor. Under the Wisconsin Workmen's Compensation Law intoxication is penalized 15 per cent. Of the 62 contested cases of accident awards from September 1st, 1911, to June 30th, 1913, the question of intoxication was raised in only one case. And this

solitary charge was not sustained by the Supreme Court. The 1914 report of the Wisconsin Industrial Commission shows further that intoxication is an almost negligible factor.

"The New Jersey Workmen's Compensation Law specifically says that if the injured employee was intoxicated at the time of the injury, recovery of accident claims is thereby barred. Yet the New Jersey Employers' Liability Commission states in its 1913 report (p. 5) that of 5,750 cases of non-fatal accidents and 233 cases of fatal accidents reported for compensation during the year, 93.2 per cent. were settled automatically. This shows fully that intoxication or other forms of 'wilful negligence' were lacking.

"In California 10,835 industrial accidents were reported in the year ended December 31st, 1912. The California Industrial Accident Board declared on the subject as follows: 'Our statistics show that in California we kill four times as many as we should, but California has done nothing in the way of safeguarding its working people against needless dangers. There are literally no laws requiring machinery to be made safe. If

the Legislature will give the Industrial Accident Board power and authority to make the employments and places of employment as safe as they reasonably can be made, it will undertake, within five years, to reduce by one-half the number of serious and fatal accidents that would otherwise take place.'

"The soundness of this plea was recognized by the California Legislature which passed an act, to take effect in 1914, authorizing the Industrial Accident Board to establish a Bureau of Safety.

"The Iowa Employers' Liability Commission recently made a similar declaration: 'If the members of the General Assembly,' it reported, 'will provide efficient and adequate means for the enforcement of laws relating to accident prevention, injuries to employees in this state can be reduced, in a very conservative estimate, 50 per cent., and thereby very materially reduce the cost of any new system of compensation.' The Iowa Workmen's Compensation Law went into effect on July 1st, 1914.

"In the report of the Pennsylvania Accidents Commission, a legislative inquiry body, the causes of industrial accidents were re-

cently stated as follows: 'It may be stated with fair exactness that 20 per cent. of all factory accidents are primarily due to the negligence of the employer, or of those representing him in positions of superintendents; that 25 per cent. are chiefly due to the negligence of the injured man himself; that 20 per cent. are due to the negligence of a co-employee of the injured man; while 35 per cent. are due to what may be called the hazard of the industry.' Further this Commission explains that, 'many accidents, which in statistical tables were ascribed to the negligence of the workman himself, are in reality entirely due to overwork. And this is particularly true of women, whose incapacity for long-continued toil, particularly at periods of illness, is strikingly shown by these statistical reports.'

"An investigation recently made by the Factory Inspection Department of the Board of Public Welfare of Kansas City, Mo., showed that in 33.8 per cent. of the cases of accidents, defective equipment was responsible, and in 8 per cent., defective equipment in conjunction with negligence of the workmen. This made 42 per cent. in which

the employer was wholly or partially responsible. In 22.7 per cent. of cases, according to this report, fault on the part of the workmen—such as carelessness, disregard of instructions, etc.—was responsible. This report stated, however, that 76.8 per cent. of the accidents investigated were due to conditions over which the worker had no control, and it pointed out 'how large a proportion of the accidents are due to the risks of trade.'

"Mr. Don D. Lescohier, expert of the Minnesota Bureau of Labor, states that hazards of industry cause 71.6 per cent. and contributory negligence, 5.2 per cent. Mr. Lescohier points out that in their returns of accidents, Minnesota employers admitted that 60 per cent. of all accidents were due to inherent dangers of industry. The Minnesota Bureau of Labor holds that more than 50 per cent. of these accidents were preventable. Mr. Lescohier reported that 'the principal causes of accident found responsible in whole or in part for the 38 per cent. of the accidents attributed to the workmen were youth; ignorance of the English language; incompetence; carelessness ranging all the

way from a momentary inattention or forgetfulness to foolhardy recklessness; personal shortcomings, like deafness or excitability; absorption in the work in hand, which made the workman oblivious of approaching danger; fatigue and nervous strain.'

"Turning to accidents on steam railroads, the official reports give illuminating facts.

"The reports of the Interstate Commerce Commission show that from 1904 to 1913 a total of 29,820 derailments, killing 487 persons and injuring 8,385 persons, were caused by defective equipment.

"From 1902 to 1912 defects of roadway, such as rotten ties, caused 12,674 derailments, killing 51 persons and injuring 15,664 persons.

"In the fiscal year 1911–1912 the Interstate Commerce Commission ordered inspections of 74,234 locomotives, of which 48,768 were found defective, and 3,377 were ordered out of service as dangerous. In the next year, 1912–1913, a total of 4,676 were found flagrantly defective and dangerous and ordered out of service.

"The Interstate Commerce Commission

repeatedly has reported that in many instances the Safety Appliance Act and the Hours of Service Act have been grossly violated.

"In its 1913 report the Interstate Commerce Commission described at length how high speed was expected of railway employees, notwithstanding the formal rules. Testifying before the United States Employers' Liability and Workmen's Compensation Commission, Mr. W. G. Lee, president of the Brotherhood of Railway Trainmen, declared that the railway employee did not have time to observe safety rules, such as examination of cars, trucks, appliances, etc. 'All employees know,' he testified, 'that they would not be continued in service if they consumed the time necessary to make such examinations. . . . The rules [of the railroads] go to the public which condemns the carelessness of the men, but the unwritten order goes to the employee to keep traffic moving at all hazards, and it is the latter order that he obeys.' Mr. A. B. Garretson, president of the Order of Railway Conductors, testifies to the same fact. 'The deadliest offense,' he stated, 'that occurs on any railway is delay.

Employees can be guilty of no more serious offense than to create overtime; and, if that economic situation was eliminated, a very large proportion of the causes for accidents would disappear.'"

THE END

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PUBLISHED BY THE GOODHUE CO.

WORLD PROGRESS AND SELF-BETTERMENT THROUGH SCIENCE: The Story of the Growth of Organized Knowledge and its Application for Racial Evolution, Social and Industrial Development, and Individual Welfare and Happiness. By Henry Smith Williams, B.Sc., M.D., LL.D., author of *A History of the Art of Writing*, etc., and Editor of *The Historians' History of the World.*

This new work comprises: (1) Five volumes dealing with the development of the theoretical sciences—the growth of knowledge—and constituting a History of Science; (2) Five volumes on the progress of the Industrial or Mechanical Arts—including the art of warfare; (3) Five volumes on the applications of science to the needs of the individual in every-day life, bearing the general title "Science and Self-Betterment"; and (4) a Key and Index volume comprising a dictionary of Technology, a dictionary of Scientific Biography, and a general Encyclopædic Index for the sixteen volumes. A brief summary of contents follows:

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THE AUTOLYSIN TREATMENT OF CANCER: A New and Revolutionary Method in Therapeutics. A Book for the Surgeon, the General Practitioner, and the Intelligent Layman. By Henry Smith Williams, B.Sc., M.D., LL.D., member of the National Committee for Mental Hygiene, and of the Hygiene Reference Board of the Life Extension Institute; formerly Pathologist to the Iowa State Hospital at Independence, Assistant Physician to the Blackwell's Island and Bloomingdale Asylums, and Medical Superintendent of the New York Infant Asylum and the Randall's Island Hospitals, New York City; with the active cooperation of Silas P. Beebe, B.Sc., Ph.D., M.D., recently Professor of Experimental Therapeutics at Cornell University Medical School, J. Wallace Beveridge, M.D., of New York, A. Judson Quimby, M.D., Professor of Roentgenology at the Polyclinic Hospital and Medical School, New York, and Edward Huntington Williams, M.D., of Los Angeles, California.

This new book constitutes one of the most important contributions to medical literature that has been made within the present century. It gives the first account in book form, and by far the most comprehensive and authoritative account that has anywhere been given, of the new treatment for cancer devised by Alexander S. Horovitz, of Budapest and New York, and introduced by Dr. Silas P. Beebe, recently Professor of Experimental Therapeutics at the Cornell University Medical School, in association with Dr. J. Wallace Beveridge and a company of other New York physicians.

Dr. Williams is closely associated with the originators of the new treatment, which for convenience has been termed **AUTOLYSIN** because it causes the *autolysis* or self-dissolution of cancer cells. He is the author of two papers recently published in the *New York*

Medical Journal in a Symposium on the Autolysin treatment.

THE AUTOLYSIN TREATMENT OF CANCER is prepared with the express approval of Drs. Horovitz and Beebe, and it contains a chapter by Dr. Beebe in which a full account of the Autolysin treatment is given, this chapter being a reproduction, with additions, of Dr. Beebe's important paper published in the *New York Medical Journal* of October 2, 1915. It reproduces also Dr. Beebe's original publication made in the *New York Medical Journal* of May 15, 1915, which constitutes a document of historical significance, since it tells of the inauguration of a new type of medication that is expected to take its place on an equality with serum-therapy and vaccine-therapy.

In addition to giving full practical instructions for the use of Autolysin in the treatment of malignant neoplasms—epitheliomas, carcinomas, and sarcomas of every type—this book also tells the story of the development of the remedy, which is now being used by several hundred physicians in the United States, and which had been tested on more than five hundred cases of inoperable cancer before it was placed in the hands of the general profession.

The results of the use of Autolysin in these cases were fully tabulated by Dr. Williams in his article in the *New York Medical Journal* of November 13, 1915, which is here reproduced with important additions. The statistics of about 750 cases of inoperable cancer show that two-thirds of these cases, taken quite at random even in the later stages, are very greatly benefited by the Autolysin treatment, although beyond the reach of any other form of medication or manipulation hitherto known.

AUTOLYSIN brings the treatment of cancer within the province of the internist, and makes it possible for the general practitioner to do more to-day for inoperable and

supposedly "hopeless" cases of cancer than any one has ever been able to do hitherto. In a group of 494 consecutive cases, treated by fourteen different physicians, largely under the supervision of Dr. Beebe, no fewer than fifty cases, or ten per cent. of the whole, are recorded as making clinical recoveries.

Not the least important part of Dr. Williams's book is an elaboration of a new theory of cancer which has developed in connection with study of the results of the Autolysin treatment and some very practical admonitions as to the possible prevention of the development of malignant neoplasms. The reasoning here employed is along the lines of a new theory of immunity, put forward by Dr. Williams (in association with Dr. Beveridge) under the name of the Proteomorphic Theory, which is held to offer the best theoretical explanation that has been suggested as to the manner of action of the new remedy.

It should be understood, however, that while the theoretical considerations lead to specific conclusions as to Causation and Prevention of cancer and are thus of very practical significance, the vitally important part of Dr. Williams's new book is the account of the actual method of administration of Autolysin, and the definite results of its use. This comes as a message of hope to cancer sufferers, and as a boon to the physician who hitherto has stood absolutely helpless in the presence of this malady.

Thanks to Autolysin, inoperable cancer is no longer to be regarded as a hopeless condition, provided it is taken in hand before the patient reaches actual moribundity. This book tells how the general practitioner, who hitherto could do no more than give palliative opiates and await the end, may take an active hand in fighting the malady. The weapons he requires are an ordinary hypodermic syringe and some ampules of Autolysin. The syringe he

already possesses. Autolysin he may secure, if he is a legally qualified practitioner, by writing to Mr. S. M. Noyes, the Autolysin Laboratories, 17 East 38th Street, New York. The method of using the remedy is given in detail—with the full authorization of Drs. Beebe and Beveridge and their associates—in Dr. Williams' new book.

To recapitulate: **THE AUTOLYSIN TREATMENT OF CANCER**, by Dr. Henry Smith Williams, is a book of the most practical character, written primarily for the general practitioner, but of the highest importance to every physician who ever deals with a case of malignant neoplasm of any type, and of obvious importance to a quarter of a million members of the general public who suffer from such neoplasms. It gives the only complete account of the Autolysin treatment that has hitherto been published, and is the only authoritative book on the subject that will appear for a long time to come, being issued with the co-operation and full authorization of Alex. S. Horovitz, of Budapest and New York, the originator of Autolysin, and Dr. Silas P. Beebe, recently Professor of Experimental Therapeutics at Cornell University, who was chiefly responsible for its introduction, and who has had personal experience of its use in more than five hundred cases,—all suffering from inoperable and supposedly hopeless cancer, two-thirds of whom, nevertheless, have shown notable improvement under the treatment.

THE AUTOLYSIN TREATMENT OF CANCER is an octavo volume of more than 300 pages, with half-tone illustrations, and tables and charts showing methods and results of the use of Autolysin. It may be obtained at book stores or directly from the publishers. Price, postpaid, bound in red Buckram, $3.75. Address: THE GOODHUE COMPANY, Publishers, 120 West 32d Street, New York City.